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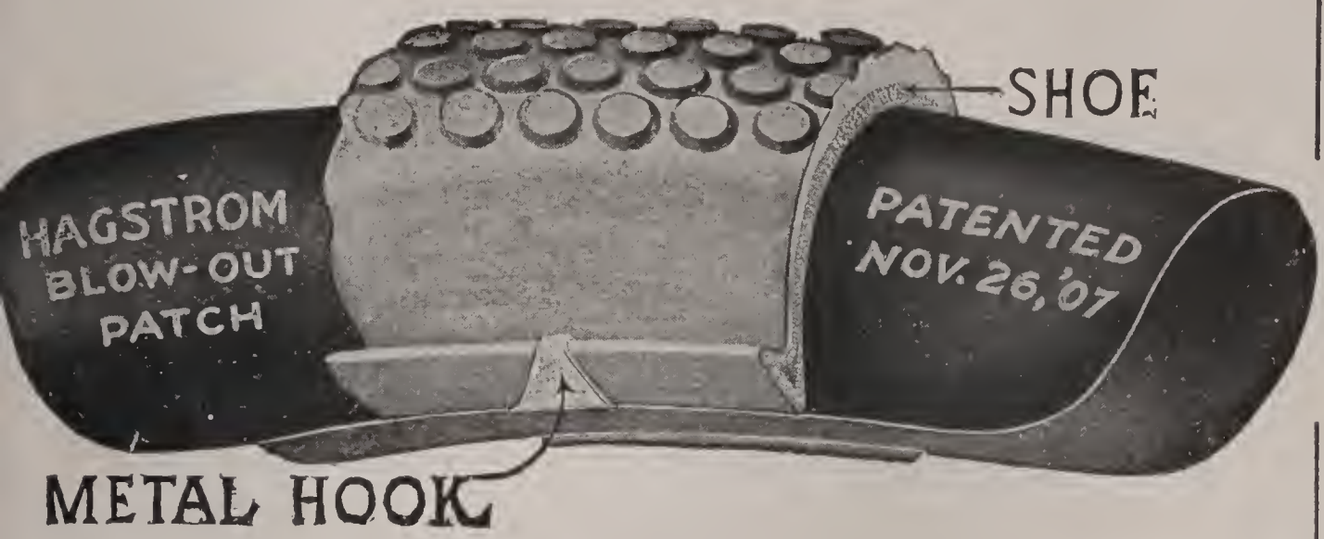
THE LIBRARY OF CONGRESS

THE LIBRARY OF CONGRESS

Go ahead in safety



WHEN you carry HAGSTROM INSIDE TIRE SLEEVES in your tool box there is no need of carrying extra casings. The Hagstrom Sleeve fills the bill. They do not disfigure your car and, once inserted in the tires, will last thousands of miles; they positively can not creep and will build up the weak spots; saves vulcanizing, if applied in time, prevents rim cuts and blow outs; easy to insert and will save a large per cent of your tire expense. The Hagstrom Tire Sleeves are the greatest sensation of the season in the auto-tire accessory line, and is the only sleeve that has the endorsement of

our leading motorists and racing men.

Workmanship and material are carefully selected. The Hagstrom Sleeves are put up in boxes, making them convenient to carry. Ask your dealer. On sale everywhere.

HAGSTROM BROS. MANUFACTURING CO.

Works and Main Office

LINDSBORG, KANSAS

Do You Wonder that the Splitdorf Product Leads the World?

The Most Marvelous Non-Stop Automobile Run Ever Made—**10,000 miles without stopping its engine recently accomplished by a Maxwell car equipped with a**

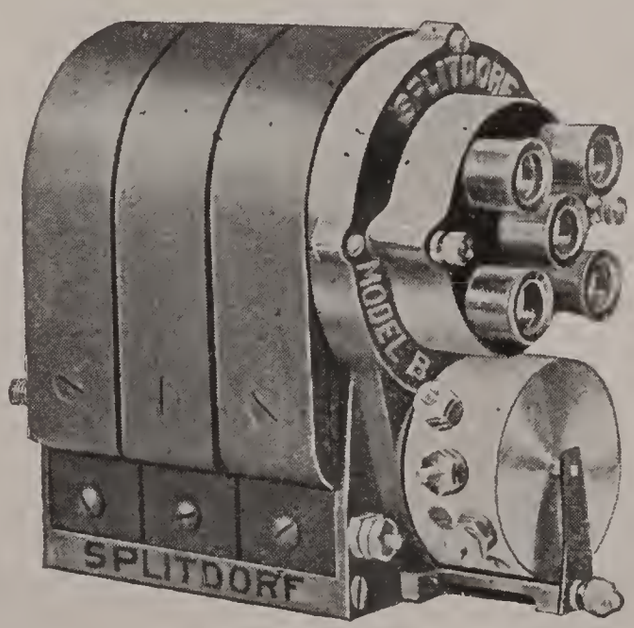
SPLITDORF MAGNETO

AND

COMMON SENSE PLUGS

Magneto and Plugs gave absolutely perfect ignition during entire run.

It is comparatively easy for any Magneto or Plug to show good results in a race of 400 or 500 miles, but a gruelling test of 25 days' continous and perfect work is a performance that proves to the utmost the efficiency and reliability of this incomparable Magneto and Plug.



The following is the last paragraph of a letter received by us from the Maxwell-Briscoe Motor Co. regarding this unparalleled feat:

"This test has conclusively proved to us that your Magneto is superior to anything we have ever used.

Yours very truly,
MAXWELL-BRISCOE MOTOR CO.
C. W. Kelsey."

Ask for Magneto catalog

CHICAGO: 319 Michigan Ave.
SAN FRANCISCO: 520 Van Ness Ave.
DETROIT: 886 Woodward Ave.
BOSTON: Motor Mart.

C. F. SPLITDORF

Walton Ave. and 138th St.
Branch, 1679 Broadway

NEW YORK

Autoline

The Perfect Lubricating Oil for All Types of Motor Cars and Motor Boats

The Oil that Saves the Motor

A supply of **Autoline** for cylinders, Greoil for transmissions and B Journal Compound for bearings cn a long trip secures a maximum of efficiency and a minimum of worry.

Autoline

IF PROPERLY USED

Will Not Carbonize--Will Not Soot

Quality and uniformity guaranteed—Accept no substitute. There is nothing "Just as Good" for a motor car of any description. If your garage does not keep **Autoline**, write us and name make of your car.

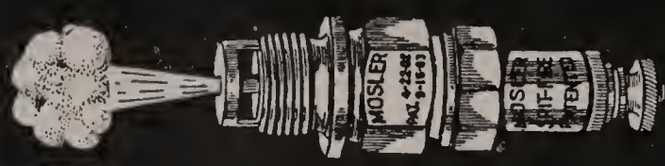
Autoline

Manufactured by

Wm. C. Robinson & Son Co.

CHICAGO, ILL. TERRE HAUTE, IND. BALTIMORE, MD.
BOSTON, MASS. PHILADELPHIA, PA. PITTSBURG, PA.
CINCINNATI, O.

REFINERY AT CORAOPOLIS, PA.



First on Land, First on Sea,
First in the Hearts of All Motormen

Mosler Spit Fire PLUGS

Lead the World

USED BY THE LEADING MANUFACTURERS

MAGNETO TYPE OF ALL SIZES

Made to fit any engine, any thread.
Have heavy Genuine Iridium Platinum Points.
Can be had for the asking.

Energetic Ignition

BASE Protects Porcelain and Sparking Points
BASE acts as Condenser of Electricity
BASE Forms Compression Chamber

Greater Power

BASE Makes Plugs Spit Fire
BASE Economizes Current
BASE Facilitates Sparking

INSIST UPON THE TWO PATENTED SIDE CLEANING HOLES
—*One is not enough!*

We Protect our Registered Trade Mark and Patents. Dealers and Jobbers BEWARE!

Do not be deceived by any other "Fire" name.
There is only ONE GENUINE "Spit Fire" plug—that made by

A. R. MOSLER & CO.
Originators of the "Spit Fire" principle

A TRIUMPH FOR THE SPIT FIRE

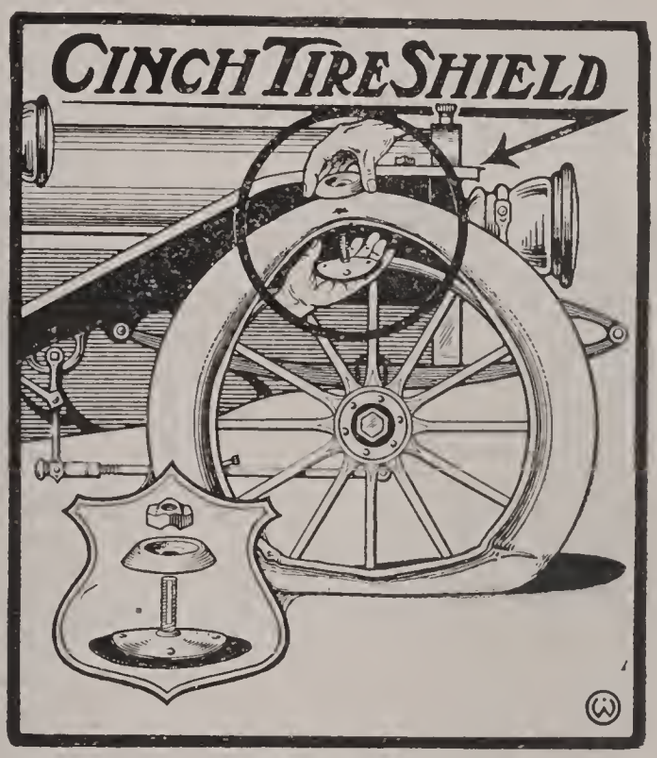
The ONLY Plugs in the WORLD that ACTUALLY Spit Fire

INSIST ON THE GENUINE, with Name on Porcelain and Base

A. R. MOSLER & CO 163 W 29th Street, New York

Don't Walk Home Don't Run on Flat Tires

Put on a **CINCH**



Patent Allowed

ARE YOU PREPARED FOR A BLOW-OUT?

IF NOT

GET A CINCH TIRE SHIELD

Made to fit any sized tire

Made either of LEATHER REINFORCED with STEEL or of STEEL COVERED WITH CANVAS

WHY CARRY EXTRA CASES?

Put a few Cinches in the tool box and repair any and all blow-outs

ASK FOR OUR CATALOGUE

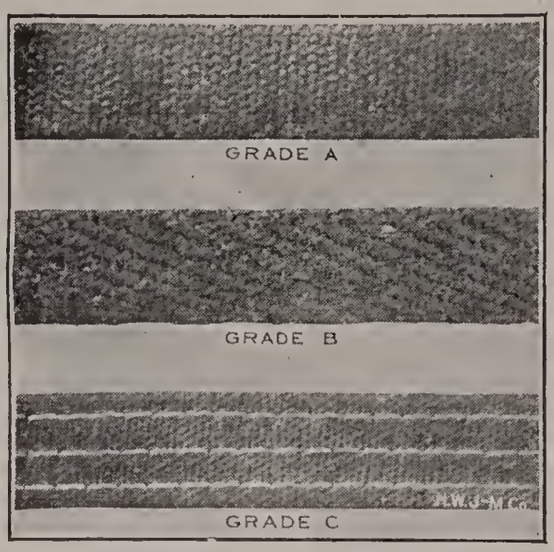
OF

AUTO NOVELTIES AND SUPPLIES INCLUDING THE MARVELOUS TARNISH PREVENTATIVE

LAWRENCE & WELCH

STERLING, ILLINOIS

For sale by all Reliable Dealers



MADE IN THREE GRADES—
Any Length or Thickness

Non-Burn Brake Lining Locked Wheels Instantly

Out of the five most largely used brake band linings recently put to an exhaustive test by Mr. J. D. Maxwell, of the Maxwell Briscoe Motor Company.

Non-Burn was the only one which locked wheels of car INSTANTLY. The lining which came nearest to this locked wheels in 12 feet.

A difference of only one foot in the stopping distance often averts a serious accident!

NON-BURN BRAKE LINING is made of pure long-fibred Asbestos with brass wires inserted. Heat from friction or oil and water do not affect it. Wears 40,000 to 50,000 miles.

Write nearest Branch for Sample and Booklet.

Manville Fire Extinguisher

is absolutely warranted to put out any fire, whether arising from gasoline, benzine, calcium carbide, or any other cause, if thrown at the base of flames when fire first starts. It is also warranted not to injure paint or the upholstering, and not to freeze, cake in the tube, corrode or deteriorate with age.

Is always ready, always sure. **Over a Half Million in Use.**

Write nearest Branch for Booklet.

Mobilene Packing Won't Blow Out

MOBILENE PACKING does not burn, char, harden and blow out like rubber, cloth and other so-called gas-engine packings. It is made of an indestructible mineral — *asbestos* — which heat does not affect.

MOBILENE also has exceptional strength because fine brass wires are intertwisted in each strand. It is pliable, compressible and easily cut. Is graphited one side and all ready to apply.

See that it is used on your auto and avoid vexatious delays. **Write nearest Branch for Sample and Booklet.**

H. W. JOHNS-MANVILLE CO.

Baltimore	Cleveland	London	New Orleans	San Francisco
Boston	Dallas	Los Angeles	New York	Seattle
Buffalo	Detroit	Milwaukee	Philadelphia	St. Louis
Chicago	Kansas City	Minneapolis	Pittsburg	

Waterhouse Carburator

No re-hashing of old methods, fundamentally new

IT HAS ONLY ONE ADJUSTMENT, THE NEEDLE VALVE, ONCE SET REMAINS FIXED FOR ALL SPEEDS

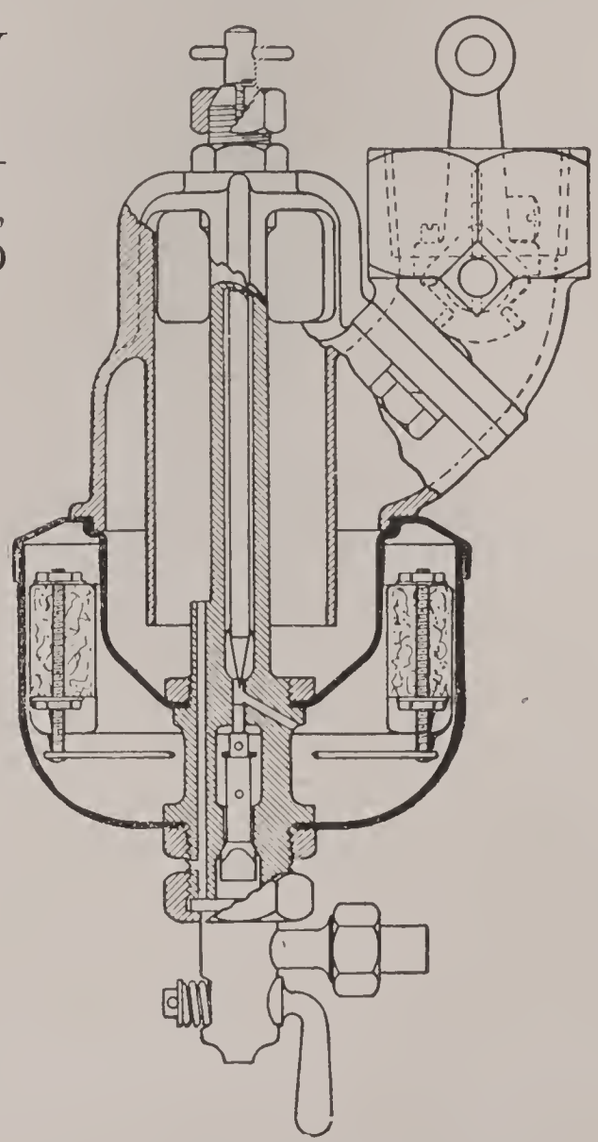
No Air Auxiliaries, no Springs and no Spray Nozzle, can't Flood.

Always primed for starting, won't choke up. Responds to the throttle instantly.

It's light in weight and very tiny.

Extremely powerful and gives absolutely no trouble.

Its price is low.



ONE-HALF ACTUAL MEASUREMENTS OF ONE INCH SIZE

Makers of the celebrated
Bemus Timers

Monitor Mfg. Co.

28 PELHAM COURT
Boston, Mass.

Manufacturers of the Famous
Monitor Distributors

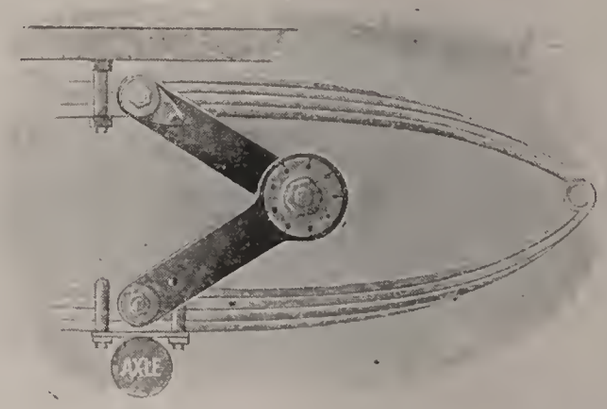
STOP *THE JAR AND SHOCK*

AND THE EVER WORKING INJURY TO YOUR CAR BY THE USE OF THE

WESTEN SHOCK ABSORBER

THE ONLY SHOCK ABSORBER MADE THAT WILL AUTOMATICALLY ADJUST THEMSELVES TO ANY LOAD OR ROAD CONDITIONS.

This absorber automatically adjusts itself to the natural position regardless of the load carried by the vehicle, and at the same time brakes the upward as well as the downward motion of the springs.



In the ordinary shock absorber the absorbing qualities are lost by the addition of extra weight, or if the car meets with an unordinary obstruction. While the vibration of the engine is in no way checked and is the cause of much wear and tear. Westen Shock Absorbers catch all vibrations at all times no matter how small or how great. The automatic adjustment within itself make them superior. After once attached to your car assurance of safety and less cost for upkeep is guaranteed, and the unpleasant sound of the nerve racking rattle of loose parts is eliminated.

You should realize at once the damage done by oscillation and equip your car with Westen Shock Absorbers. You will then be prepared to meet unexpected jolts and unseen depressions in the road and add, at the same time, comfort to the passengers of the car.

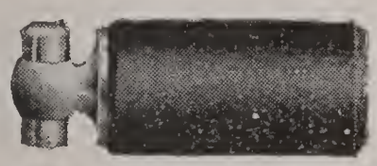
There are two friction planes which make the absorber capable of offering different degrees of resistance to the action of the vehicle springs under varying conditions.

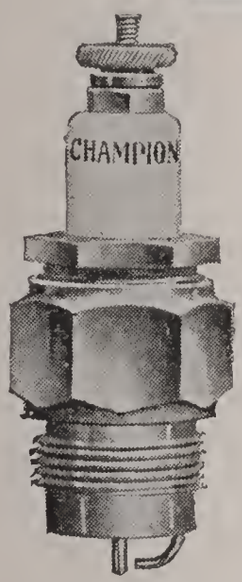
WESTEN MANUFACTURING CO.

290 HALSEY STREET

Newark, New Jersey

The Right Spark Plug is an important adjunct to any Gas Engine





In the construction of the Champion Spark Plug the utmost care is given to every detail, thus assuring the best results.

The porcelain is of the very highest quality procurable.

The centre wire is firmly cemented and baked in, thus doing away with any possible leak of compression through that source.

The shell and bushing are cut from solid stock and so designed that when assembled porcelain does not actually come in contact with either at any point, thus preventing any chance of breakage from contraction or expansion of metal.

The workmanship on parts is so good and so accurate that no matter how many times the plug is taken apart and re-assembled the porcelain is always perfectly centered.

The electrodes or points are of nickel alloy; will not oxidize; are imperforable to spark of almost any intensity; are especially adapted to use with magneto, under which use the points will not burn off as they do on so many other plugs.

The combustion chamber at lower extremity of porcelain keeps the points free from soot, and practically eliminates any necessity for cleaning.

We particularly recommend the use of Champion Plugs under severest conditions, such as very high compression, excessive oil in cylinders, with magneto, etc.

Genuine Champion Spark Plugs are manufactured only by

The Champion Company

36 Whittier Street, Boston, Mass.

This is a cash

6 60

proposition $10.00 only

Compare these sizes with other 6 volt
60 ampere Batteries

$8 \times 6\frac{1}{4} \times 9\frac{1}{8}$

Guaranteed for one year or money refunded. Made in sizes from 40 amperes up

---

MICHIGAN STORAGE BATTERY CO.

67 East Atwater Street, Detroit, Mich.

YOUR CAR CANNOT RUN EASIEST

Nor Last Longest Without the Best Lubricant

The ONE Automobile Oil and the ONE Automobile Grease you can always depend upon—that gives PERFECT SATISFACTION and reduces cost of lubrication and repair bills to a minimum is

SPEARE'S

AUTO OIL AND GREASE

THEY SAVE WEAR
INCREASE POWER and
EVERY DROP LUBRICATES

WHY?

Because they are manufactured by a firm with fifty-five years' experience in the lubricating oil business.

Speare's Body Soap
Speare's Metal Polish
Speare's Waste

are also the most economical you can buy

SPEARE'S GOODS are sold everywhere; if not, send dealer's name and write us direct.

DEALERS—Send for Speare's latest proposition.

THE ALDEN SPEARE'S SONS CO.

Established 1851

253 Broadway
New York

369 Atlantic Avenue
BOSTON, MASSACHUSETTS

21 River Street
Chicago

T. S. D. Recording Company

(Metropolitan Building)

NO. 1 MADISON AVENUE, NEW YORK

Manufacturers of best modern devices and instruments for accurately measuring **TIME, SPEED, DISTANCE**, including stops or waiting time, and permanently registering same.

Machines suitable for all kinds of vehicles—horse drawn or motor. **Especially adapted for Automobiles.**

T. S. D. Combination Recorder, containing within a highly polished brass case, securely locked, with plate glass front, a Speedometer, Odometer, Clock (eight day, full-jewelled marine movement), and recording tape sufficient for one week, on which is correctly and permanently recorded time employed, speed attained, distance travelled and stops made day or night. **Absolutely eliminates "Joy Rides."**

T. S. D. Commercial Recorder (for commercial vehicles), comprising clock and record tape, locked within a solid metal case, and giving a clear, permanent record of exact movement of vehicles, thus **preventing or minimizing speeding or loitering.**

T. S. D. Combination Recorder

Half Size

T. S. D. Speedometer and Odometer combined

T. S. D. Speedometer—singly

T. S. D. Odometer

T. S. D. Clocks

T. S. D. Taximeter or **Taxirecord** for taxicabs and vehicles for hire

Exclusive Territory To Responsible Representatives

The construction of all T. S. D. Machines embodies features which mark a distinct advance in the State of the Art, and will meet all requirements of practicability, reliability, accuracy and durability, which instruments for the service intended should possess.

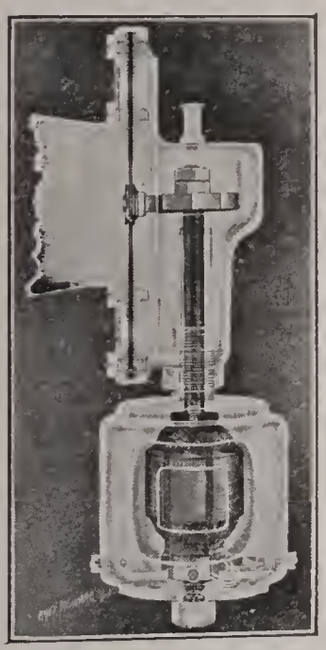
THE

KLAXON

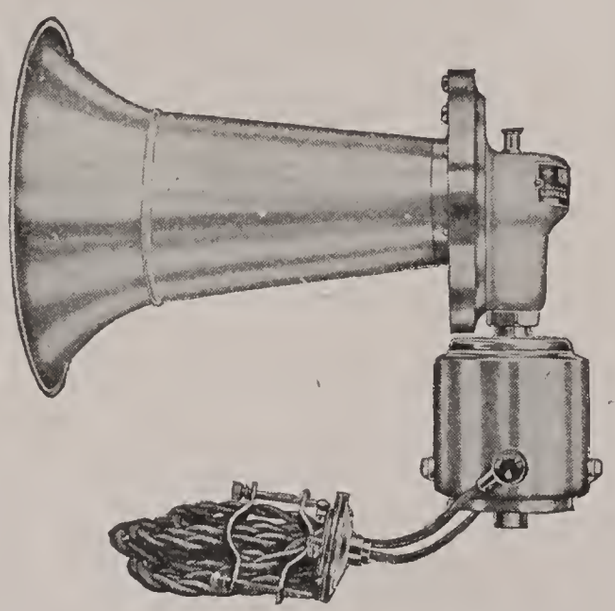
Trade Mark Reg. Patented Mar. 31-08, Jan. 19-09 (2), Feb. 2-09, May 25-09 (3)

"THE X-RAY OF SOUND"

THE "Klaxon" is a Noise machine. It is run by an electric motor and is built to run for years :: :: :: It operates from a 6 or 8-volt storage battery or 8 dry cells. It is not a horn--reed or electric---though it looks somewhat like one :: :: ::



Sectional view of KLAXON showing relative position of motor shaft, toothed wheel and vibrating diaphragm.



Type L—Long Projector

Lovell-McConnell Mfg. Co., *Manufacturers*

365-367 Market Street, NEWARK, N. J.

The Klaxon Company

Sole Distributors for U. S. A.

1 Madison Avenue, NEW YORK

TOURISTS en route between
CHICAGO and NEW YORK

Can secure UNIFORM LUBRICATION and FREEDOM from CARBON TROUBLES, by calling for

ANTI-CARBON AUTO OIL

Made By

THE KEYSTONE REFINING CO.

COLUMBUS, OHIO

at any of the following FIRST-CLASS GARAGES along the route:

CHICAGO, ILL.
The Motor Car Supply Co., 1451-53 Michigan Ave.

HAMMOND, IND.
Hammond Garage Company

CROWN POINT, IND.
GARY, IND.
C. M. Baker

VALPARAISO, IND.
A. L. Zimmerman, 251 W. Main St.

LAPORTE, IND.
Auto Maintenance Co., 808 Monroe

LOGANSPORT, IND.
A. E. Dunn, Main Street

PERU, IND.—Adams & Sampsel

KOKOMO, IND.
J. E. Palethorpe, 20 East Sycamore

TIPTON, IND.
Tipton Garage and Machine Works

WAUSEON, OHIO
F. R. Harper

TOLEDO, OHIO
Atwood Garage, 2015 Monroe Street

FREMONT, OHIO
Fremont Auto & Repair Co., 207-09 Garrison Street

TIFFIN, OHIO
H. P. Klaiss, 123 East Market Street

BELLEVUE, OHIO—E. C. Reitz

OBERLIN, OHIO—A. P. Cook

ELYRIA, OHIO—The Auto Inn

LORAIN, OHIO
F. S. Rathwell, 425-27 Broadway

WILLOUGHBY, OHIO—Star Garage

ASHTABULA, OHIO
C. L. Scrivens Motor Co., 13 Spring Street

BUFFALO, N. Y.—Chas. E. Miller, 824 Main St.

NIAGARA FALLS, N. Y.
Niagara Falls Auto & Transit Co., 103 Main St.

BATAVIA, N. Y.—Hilte & Kennedy, 24 Main St.

ROCHESTER, N. Y.
Rochester Auto Supply Co., 375 Main Street

AUBURN, IND.
Auburn Automobile Co., 54-60 Water Street

SYRACUSE, N. Y.
Amos & Pierce Automobile Co.

ALBANY, N. Y.
Albany Garage Co., 28-30 Howard Street

NEW YORK—Chas. E. Miller, 97 Reid Street

By using the same grade of oil from start to finish you avoid the necessity of changing feed, and we are positive you can not start with a better oil, or one that will cause you LESS CARBON TROUBLE than our celebrated

ANTI-CARBON AUTO OIL

We will appreciate it if consumers will report to us any dealers who try to substitute an inferior oil for our ANTI-CARBON.

THE KEYSTONE REFINING COMPANY
COLUMBUS, OHIO

The same consistency for all seasons of the year. Not affected by severe con= ditions of heat and cold.

KEYSTONE GREASE

ESTABLISHED 1884

Holds the record for lowest fric= tion and greatest test for endur= ance in the great plant of the Wil= liam Cramp & Sons Ship and Engine Building Company, Phila- delphia.

ORDER IT NEXT TIME

Has an estab= lished reputation in the power plant field for superiority and greatness. Ask any engineer anywhere.

Is not soluble in water like cheap grease.

ORDER IT NEXT TIME

The World's Greatest Lubricant

No. 1 Density (solid) for use in all grease cups—on axle bearings or wherever the use of a solid lubricant might be required.

No. 3 Density (semi-solid) for transmission, differential and timing gear cases.

KEYSTONE

Lubricating Company

Philadelphia

CHICAGO
907 Tacoma Bldg.
NEW YORK
1777 Broadway
BOSTON
Oliver Bldg.
NEW ORLEANS
612 Chartres Bldg.

Dealers and Jobbers write for our Special Proposition.

Gus Balzer Manufacturer and Manufacturers Representative

Representing

MONOGRAM CREST AND SIGN CO.

We Handle Following Goods:

awed and Etched Name Plates. Radiator Cap Eagles and Ornaments. Limousine Bouquet Holders.

We Make a Specialty of all Ornaments that are used on an Automobile

777 Broadway New York

The so called Tire Problem is no Problem at all to a raft of

Goodrich Tire

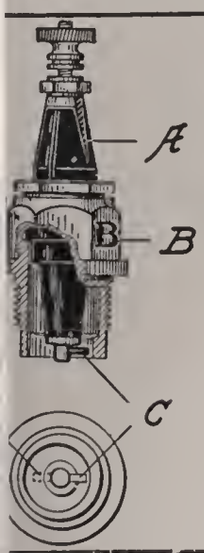
USERS

They get inexpensive pleasurable milage—and a good deal of it

The B. F. Goodrich Company

Akron, Ohio

anches in all large Cities



The "Excentric" Mica Plug

Try it and convince yourself of its superiority. Guaranteed for one year

Mica Core Manufacturing Co.

Makers of Spark Plugs, Mica Cores, Timers and Distributers

446 E. 166th STREET NEW YORK CITY

WORCESTER IGNITION SPECIALTIES

WORCESTER COMBINATION ROTARY SWITCH
(Controller Type)

Operated by Hand or Foot

WORCESTER AUTOMOBILE AND MARINE COILS

SEND FOR CATALOG

W. H. LELAND & COMPANY

WORCESTER :: MASSACHUSETTS

PHOTO-AUTO MAPS

Photographs of every turn, together with a

Topographical Outline of Road

Showing Railroad Crossings, Bridges, School Houses and All Landmarks, with Accurate Distances Between

SO. BEND TO INDIANAPOLIS
INDIANAPOLIS TO SO. BEND

Rand McNally & Company

PUBLISHERS

36 and 168 Adams Street
CHICAGO

142 Fifth Avenue
NEW YORK

© Aug. 10, 1909
Cl. A 244057
AUG 12 1909

v. 10

Instructions for Using Photo-Auto Maps

The best way to use the Photo-Auto Maps is to follow the route by the topographical map and refer to the photographs only to make sure that you are turning at the right place. Use your meter at all times to get the distances between turns. The distances given between turns will vary with different machines, as a slight difference in size of tires, different conditions of the roads and many other things tend to vary the register. Three meters were used and an average taken to get the distances given. The numbers in the squares and circles give the number of the photographs at the turns and the figures outside of them give the distance to the next photograph. The compass on each plate should be used to get correct directions. This map is not drawn to scale, but is made to show the turns to the best advantage. Where turns occur close together the map is enlarged and where there is a long straight run it is condensed, so do not judge distances by the appearances of the map. Go entirely by the meter readings. Distances between closest points only are given to insure the smallest variation. The distances given are the average obtained from three different makes of speedometers and a re-check by the Warner Auto-Meter.

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Copyright 1909, by Rand McNally, & Co., Chicago

Index to Towns

The first column of figures gives the numbers of the photos in the town or the nearest photo to it. The second column gives the number of the map on which the town is located.

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Batavia	"	165–677	21
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CONTINUED ON NEXT PAGE

To the Motorist Who is Down on His "Tire Luck"

You don't hear the man who uses Morgan & Wright tires saying much about his "tire luck," good or bad.

After he has used a pair or two, he gets out of the habit of ascribing the completion of a trip or a tour without tire trouble to good fortune. He lays it to ***"Good Tires"***—nothing else. He knows that—take tires made as Morgan & Wright tires are, out of the highest grade of materials with a painstaking care in regard to the minutest details of construction, and give them proper care—tire service ceases to be a matter of chance.

He gets a confidence in his tire equipment that adds much to the enjoyment of his car, and a freedom from repair bills that is a big help to his bank account.

There is no truer saying in motordom than that—

MORGAN & WRIGHT TIRES

ARE GOOD TIRES

Dealers everywhere sell them at the same price you are asked to pay for other brands.

Morgan & Wright, Detroit

INDEX TO TOWNS—Continued

NAME OF TOWN		Photo No.	Plate No.
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Macedon	"	177–689	23
Mechanicsville	"	17C–39C	402
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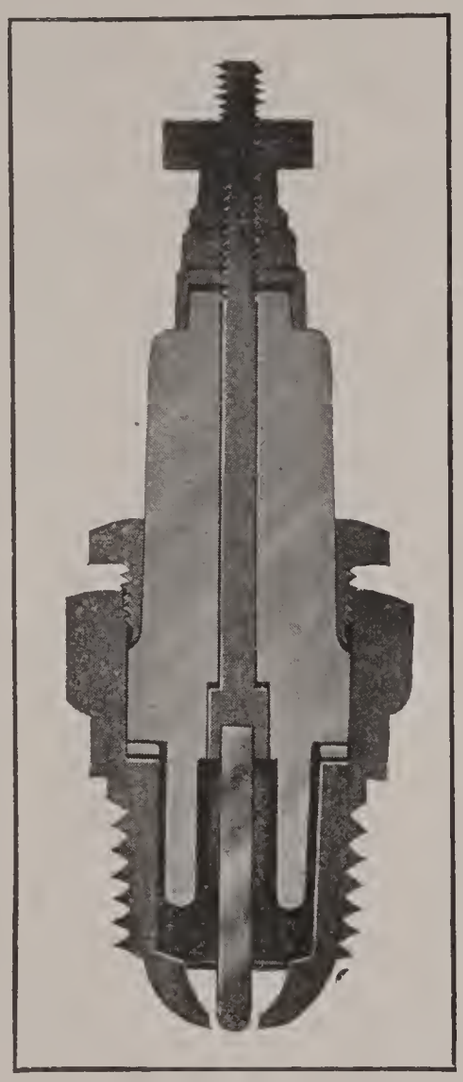

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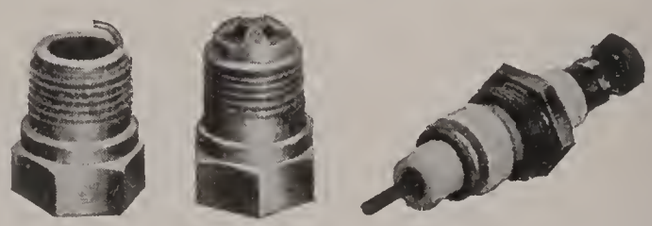

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Table of Distances Between Points

CHICAGO TO SOUTH BEND

FROM — TO	Chicago	Hammond	Highlands	Hobart	Wheeler	Valparaiso	Westville	La Porte	New Carlisle	South Bend
Chicago - - - - - - -	—	19.6	26.9	39.0	44.8	53.4	64.7	76.5	91.0	106.2
Hammond - - - - -	19.6	—	7.3	19.4	25.2	33.8	45.1	56.9	71.4	86.6
Highlands - - - - - -	26.9	7.3	—	12.1	17.9	26.5	37.8	49.6	64.1	79.3
Hobart - - - - - -	39.0	19.4	12.1	—	5.8	14.4	25.7	37.5	52.0	67.2
Wheeler - - - - - -	44.8	25.2	17.9	5.8	—	8.6	19.9	31.7	46.2	61.4
Valparaiso - - - - -	53.4	33.8	26.5	14.4	8.6	—	11.3	23.1	37.6	52.8
Westville - - - - - -	64.7	45.1	37.8	25.7	19.9	11.3	—	11.8	26.3	41.5
La Porte - - - - - -	76.5	56.9	49.6	37.5	31.7	23.1	11.8	—	14.5	29.7
New Carlisle - - - - -	91.0	71.4	64.1	52.0	46.2	37.6	26.3	14.5	—	15.2
South Bend - - - - -	106.2	86.6	79.3	67.2	61.4	52.8	41.5	29.7	15.2	—

TABLE OF DISTANCES

	South Bend	Mishawaka	Osceola	Goshen	Benton	Ligonier	Wawaka	Kendallville	Waterloo	Butler	Edgerton	Bryan	Stryker	Archbold	Wauseon	Delta	Swanton	Toledo
South Bend		4.5	10.2	24.8	32.1	42.8	49.1	61.8	76.8	84.5	91.7	103.4	112.1	119.3	129.7	140.6	146.0	173.4
Mishawaka	4.5	**P**	5.7	20.3	27.6	38.3	44.6	57.3	72.3	80.0	87.2	98.9	107.6	114.8	125.2	136.1	141.5	168.9
Osceola	10.2	5.7	**H**	14.6	21.9	32.6	38.9	51.6	66.6	74.3	81.5	93.2	101.9	109.1	119.5	130.4	135.8	163.2
Goshen	24.8	20 3	14.6	**O**	7.3	18.0	24.3	37.0	52.0	59.7	66.9	78.6	87.3	94.5	104.9	115.8	121.2	148.6
Benton	32.1	27.6	21.9	7.3	**T**	10.7	17.0	29.7	44.7	52.4	59.6	71.3	80.0	87.2	97.6	108.5	113.9	141.3
Ligonier	42.8	38.3	32.6	18.0	10.7	**O**	6.3	19.0	34.0	41.7	48.9	60.6	69.3	76.5	86.9	97.8	103.2	130.6
Wawaka	49.1	44.6	38.9	24.3	17.0	6.3		12.7	27.7	35.4	42.6	54.3	63.0	70.2	80.6	91.5	96.9	124.3
Kendallville	61.8	57.3	51.6	37.0	29.7	19.0	12.7	**A**	15.0	22.7	29.9	41.6	50.3	57.5	67.9	78.8	84.2	111.6
Waterloo	76.8	72.3	66.6	52.0	44.7	34.0	27.7	15.0	**U**	7.7	14.9	26.6	35.3	42.5	52.9	63.8	69.2	96.6
Butler	84.5	80.0	74.3	59.7	52.4	41.7	35.4	22.7	7.7	**T**	7.2	18.9	27.6	34.8	45.2	56.1	61.5	88.9
Edgerton	91.7	87.2	81.5	66.9	59.6	48.9	42.6	29.9	14.9	7.2	**O**	11.7	20.4	27.6	38.0	48.9	54.3	81.7
Bryan	103.4	98.9	93.2	78.6	71.3	60.6	54.3	41.6	26.6	18.9	11.7		8.7	15.9	26.3	37.2	42.6	70.0
Stryker	112.1	107.6	101.9	87.3	80.0	69.3	63.0	50.3	35.3	27.6	20.4	8.7	**M**	7.2	17.6	28.5	33.9	61.3
Archbold	119.3	114.8	109.1	94.5	87.2	76.5	70.2	57.5	42.5	34.8	27.6	15.9	7.2	**A**	10.4	21.3	26.7	54.1
Wauseon	129.7	125.2	119.5	104.9	97.6	86.9	80.6	67.9	52.9	45.2	38.0	26.3	17.6	10.4	**P**	10.9	16.3	43.7
Delta	140.6	136.1	130.4	115.8	108.5	97.8	91.5	78.8	63.8	56.1	48.9	37.2	28.5	21.3	10.9	**S**	5.4	32.8
Swanton	146.0	141.5	135.8	121.2	113.9	103.2	96.9	84.2	69.2	61.5	54.3	42.6	33.9	26.7	16.3	5.4		27.4
Toledo	173.4	168.9	163.2	148.6	141.3	130.6	124.3	111.6	96.6	88.9	81.7	70.0	61.3	54.1	43.7	32.8	27.4	

TABLE OF DISTANCES

	Toledo	Genoa	Woodville	Fremont	Clyde	Bellview	Monroeville	Norwalk	Townsend	Wakeman	Kipton	Oberlin	Elyria	Ridgeville	Dover	Cleveland
Toledo		14.1	19.4	33.3	42.3	49.9	58.4	63.5	70.2	74.7	82.5	88.4	97.8	102.6	109.7	123.7
Genoa	14.1	**P**	5.3	19.2	28.2	35.8	44.3	49.4	56.1	60.6	68.4	74.3	83.7	88.5	95.6	109.6
Woodville	19.4	5.3	**H**	13.9	22.9	30.5	39.0	44.1	50.8	55.3	63.1	69.0	78.4	83.2	90.3	104.3
Fremont	33.3	19.2	13.9	**O**	9.0	16.6	25.1	30.2	36.9	41.4	49.2	55.1	64.5	69.3	76.4	90.4
Clyde	42.3	28.2	22.9	9.0	**T**	7.6	16.1	21.2	27.9	32.4	40.2	46.1	55.5	60.3	67.4	81.4
Bellview	49.9	35.8	30.5	16.6	7.6	**O**	8.5	13.6	20.3	24.8	32.6	38.5	47.9	52.7	59.8	73.8
Monroeville	58.4	44.3	39.0	25.1	16.1	8.5		5.1	11.8	16.3	24.1	30.0	39.4	44.2	51.3	65.3
Norwalk	63.5	49.4	44.1	30.2	21.2	13.6	5.1	**A**	6.7	11.2	19.0	24.9	34.3	39.1	46.2	60.2
Townsend	70.2	56.1	50.8	36.9	27.9	20.3	11.8	6.7	**U**	4.5	12.3	18.2	27.6	32.4	39.5	53.5
Wakeman	74.7	60.6	55.3	41.4	32.4	24.8	16.3	11.2	4.5	**T**	7.8	13.7	23.1	27.9	35.0	49.0
Kipton	82.5	68.4	63.1	49.2	40.2	32.6	24.1	19.0	12.3	7.8	**O**	5.9	15.3	20.1	27.2	41.2
Oberlin	88.4	74.3	69.0	55.1	46.1	38.5	30.0	24.9	18.2	13.7	5.9		9.4	14.2	21.3	35.0
Elyria	97.8	83.7	78.4	64.5	55.5	47.9	39.4	34.3	27.6	23.1	15.3	9.4	**M**	4.8	11.9	25.9
Ridgeville	102.6	88.5	83.2	69.3	60.3	52.7	44.2	39.1	32.4	27.9	20.1	14.2	4.8	**A**	7.1	21.1
Dover	109.7	95.6	90.3	76.4	67.4	59.8	51.3	46.2	39.5	35.0	27.2	21.3	11.9	7.1	**P**	14.0
Cleveland	123.7	109.6	104.3	90.4	81.4	73.8	65.3	60.2	53.5	49.0	41.2	35.0	25.9	21.1	14.0	

TABLE OF DISTANCES

	Cleveland	Willoughby	Mentor	Painesville	Geneva	Ashtabula	Conneaut	E. Springfield	Girard	Fairview	Erie	Buffalo
Cleveland		18.8	23.5	29.7	47.5	58.0	71.8	80.4	85.9	90.2	102.1	197.2
Willoughby	18.8		4.7	10.9	28.7	39.2	53.0	61.6	67.1	71.4	83.3	178.4
Mentor	23.5	4.7		6.2	24.0	34.5	48.3	56.9	62.4	66.7	78.6	173.7
Painesville	29.7	10.9	6.2		17.8	28.3	42.1	50.7	56.2	60.5	72.4	167.5
Geneva	47.5	28.7	24.0	17.8		10.5	24.3	32.9	38.4	42.7	54.6	149.7
Ashtabula	58.0	39.2	34.5	28.3	10.5		13.8	22.4	27.9	32.2	44.1	139.2
Conneaut	71.8	53.0	48.3	42.1	24.3	13.8		8.6	14.1	18.4	30.3	125.4
E. Springfield	80.4	61.6	56.9	50.7	32.9	22.4	8.6		5.5	9.8	21.7	116.8
Girard	85.9	67.1	62.4	56.2	38.4	27.9	14.1	5.5		4.3	16.2	111.3
Fairview	90.2	71.4	66.7	60.5	42.7	32.2	18.4	9.8	4.3		11.9	107.0
Erie	102.1	83.3	78.6	72.4	54.6	44.1	30.3	21.7	16.2	11.9		95.1
Buffalo	197.2	178.4	173.7	167.5	149.7	139.2	125.4	116.8	111.3	107.0	95.1	

TABLE OF DISTANCES

	Cleveland	Erie	Wesleyville	Harbour Creek	North East	Ripley	Westfield	Portland	Brocton	Fredonia	Sheridan	Silver Creek	Irving	Buffalo
Cleveland		102.1	106.2	110.0	117.2	126.1	133.1	140.3	141.9	148.8	154.7	160.9	164.3	197.2
Erie	102.1		4.1	7.9	15.1	24.0	31.0	38.2	39.8	46.7	52.6	58.8	62.2	95.1
Wesleyville	106.2	4.1		3.8	11.0	19.9	26.9	34.1	35.7	42.6	48.5	54.7	58.1	91.0
Harbour Creek	110.0	7.9	3.8		7.2	16.1	23.1	30.3	31.9	38.8	44.7	50.9	54.3	87.2
North East	117.2	15.1	11.0	7.2		8.9	15.9	23.1	24.7	31.6	37.5	43.7	47.1	80.0
Ripley	126.1	24.0	19.9	16.1	8.9		7.0	14.2	15.8	22.7	28.6	34.8	38.2	71.1
Westfield	133.1	31.0	26.9	23.1	15.9	7.0		7.2	8.8	15.7	21.6	27.8	31.2	64.1
Portland	140.3	38.2	34.1	30.3	23.1	14.2	7.2		1.6	8.5	14.4	20.6	24.0	56.9
Brocton	141.9	39.8	35.7	31.9	24.7	15.8	8.8	1.6		6.9	12.8	19.0	22.4	55.3
Fredonia	148.8	46.7	42.6	38.8	31.6	22.7	15.7	8.5	6.9		5.9	12.1	15.5	48.4
Sheridan	154.7	52.6	48.5	44.7	37.5	28.6	21.6	14.4	12.8	5.9		6.2	9.6	42.5
Silver Creek	160.9	58.8	54.7	50.9	43.7	34.8	27.8	20.6	19.0	12.1	6.2		3.4	36.3
Irving	164.3	62.2	58.1	54.3	47.1	38.2	31.2	24.0	22.4	15.5	9.6	3.4		32.9
Buffalo	197.2	95.1	91.0	87.2	80.0	71.1	64.1	56.9	55.3	48.4	42.5	36.3	32.9	

TABLE OF DISTANCES

	Buffalo	Batavia	Bergen	Churchville	Rochester	Pittsford	Macedon	Palmyra	Phelps	Auburn	Elbridge	Camillius	Syracuse	Albany
Buffalo		39.6	55.6	59.0	73.4	80.6	92.0	97.2	111.7	138.9	149.6	156.6	165.5	318.0
Batavia	39.6		16.0	19.4	33.8	41.0	52.4	57.6	72.1	99.3	110.0	117.0	125.9	278.4
Bergen	55.6	16.0		3.4	17.8	25.0	36.4	41.6	56.1	83.3	94.0	101.0	109.9	262.4
Churchville	59.0	19.4	3.4		14.4	21.6	33.0	38.2	52.7	79.9	90.6	97.6	106.5	259.0
Rochester	73.4	33.8	17.8	14.4		7.2	18.6	23.8	38.3	65.5	76.2	83.2	92.1	244.6
Pittsford	80.6	41.0	25.0	21.6	7.2		11.4	16.6	31.1	58.3	69.0	76.0	84.9	237.4
Macedon	92.0	52.4	36.4	33.0	18.6	11.4		5.2	19.7	46.9	57.6	64.6	73.5	226.0
Palmyra	97.2	57.6	41.6	38.2	23.8	16.6	5.2		14.5	41.7	52.4	59.4	68.3	220.8
Phelps	111.7	72.1	56.1	52.7	38.3	31.1	19.7	14.5		27.2	37.9	44.9	53.8	206.3
Auburn	138.9	99.3	83.3	79.9	65.5	58.3	46.9	41.7	27.2		10.7	17.7	26.6	179.1
Elbridge	149.6	110.0	94.0	90.6	76.2	69.0	57.6	52.4	37.9	10.7		7.0	15.9	168.4
Camillius	156.6	117.0	101.0	97.6	83.2	76.0	64.6	59.4	44.9	17.7	7.0		8.9	161.4
Syracuse	165.5	125.9	109.9	106.5	92.1	84.9	73.5	68.3	53.8	26.6	15.9	8.9		152.5
Albany	318.0	278.4	262.4	259.0	244.6	237.4	226.0	220.8	206.3	179.1	168.4	161.4	152.5	

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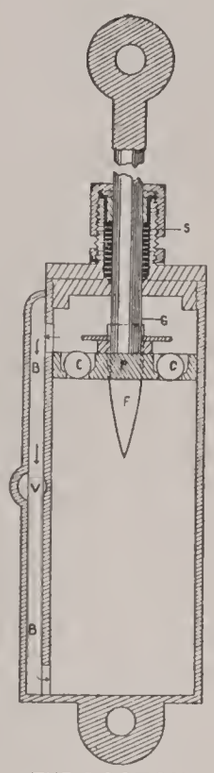

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Chicago, Ill.

JOHN S. MARTIN
Ross, Cal.

TABLE OF DISTANCES

	Buffalo	Syracuse	Fayetteville	Chittenango	Canastota	Oneida Castle	Kirkland	New Hartford	Utica	Herkimer	Little Falls	St. Johnsville	Fonda	Amsterdam	Schenectady	Albany
Buffalo	**P**	165.5	172.8	180.8	187.5	193.2	207.0	211.8	215.3	231.4	238.4	256.3	276.7	287.4	303.0	318.0
Syracuse	165.5	**H**	7.3	15.3	22.0	27.7	41.5	46.3	49.8	65.9	72.9	90.8	111.2	121.9	137.5	152.5
Fayetteville	172.8	7.3	**O**	8.0	14.7	22.4	36.2	39.0	42.5	58.6	65.6	83.5	103.9	114.6	130.2	145.2
Chittenango	180.8	15.3	8.0	**T**	6.7	12.4	26.2	31.0	34.5	50.6	57.6	75.5	95.9	106.6	122.2	137.2
Canastota	187.5	22.0	14.7	6.7	**O**	5.7	19.5	24.3	27.8	43.9	50.9	68.8	89.2	99.9	115.5	130.5
Oneida Castle	193.2	27.7	22.4	12.4	5.7		13.8	18.6	22.1	38.2	45.2	63.1	83.5	94.2	109.8	124.8
Kirkland	207.0	41.5	36.2	26.2	19.5	13.8	**A**	4.8	8.3	24.4	31.4	49.3	69.7	80.4	96.0	111.0
New Hartford	211.8	46.3	39.0	31.0	24.3	18.6	4.8	**U**	3.5	19.6	26.6	44.5	64.9	75.6	91.2	106.2
Utica	215.3	49.8	42.5	34.5	27.8	22.1	8.3	3.5	**T**	16.1	23.1	41.0	61.4	72.1	87.7	102.7
Herkimer	231.4	65.9	58.6	50.6	43.9	38.2	24.4	19.6	16.1	**O**	7.0	24.9	45.3	56.0	71.6	86.6
Little Falls	238.4	72.9	65.6	57.6	50.9	45.2	31.4	26.6	23.1	7.0		17.9	38.3	49.0	64.6	79.6
St. Johnsville	256.3	90.8	83.5	75.5	68.8	63.1	49.3	44.5	41.0	24.9	17.9	**M**	20.4	31.1	56.7	71.7
Fonda	276.7	111.2	103.9	95.9	89.2	83.5	69.7	64.9	61.4	45.3	38.3	20.4	**A**	10.7	26.3	41.3
Amsterdam	287.4	121.9	114.6	106.6	99.9	94.2	80.4	75.6	72.1	56.0	49.0	31.1	10.7	**P**	15.6	30.6
Schenectady	303.0	137.5	130.2	122.2	115.5	109.8	96.0	91.2	87.7	71.6	64.6	56.7	26.3	15.6	**S**	15.0
Albany	318.0	152.5	145.2	137.2	130.5	124.8	111.0	106.2	102.7	86.6	79.6	71.7	41.3	30.6	15.0	

WINESTOCK SPARK PLUGS

(QUICK DETACHABLE)

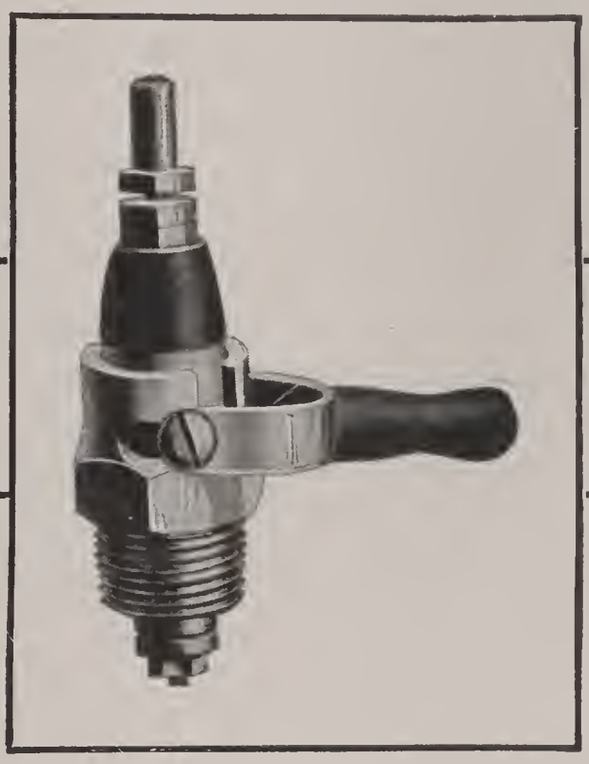
DON'T SKIP

Only quick detachable plug containing both terminals in the detachable member.

Absolutely will not leak compression

Positively will not work loose.

PRICE
$1.75



"Absolutely Guaranteed"

Gives the hottest spark of any plug made.

Non-breakable insulation.

Adjustable spark gap—once adjusted, always adjusted.

You can't imagine the convenience of a detachable plug until you have used one, it gives you a chance to examine your spark without using a wrench.

FOR SALE BY ALL FIRST-CLASS DEALERS

KNAPP-GREENWOOD COMPANY

1000 Boylston Street - - BOSTON, MASS.

TABLE OF DISTANCES

	Albany	Rensselaer	Schodack Center	Kinderhook	Stuyvesant Falls	Hudson	Blue Store	Upper Red Hook	Red Hook	Rhinebeck	Staatsburg	Hyde Park	Poughkeepsie	New York City
Albany		1.0	7.3	20.9	24.5	33.5	43.0	49.8	52.5	58.2	64.2	68.3	74.4	149.8
Rensselaer	1.0		6.3	19.9	23.5	32.5	42.0	48.8	51.5	57.2	63.2	67.3	73.4	148.8
Schodack Center	7.3	6.3		13.6	17.2	26.2	35.7	42.5	45.2	50.9	56.9	61.0	67.1	142.5
Kinderhook	20.9	19.9	13.6		3.6	12.6	22.1	28.9	31.6	37.3	43.3	47.4	53.5	128.9
Stuyvesant Falls	24.5	23.5	17.2	3.6		9.0	18.5	25.3	28.0	33.7	39.7	43.8	49.9	125.3
Hudson	33.5	32.5	26.2	12.6	9.0		9.5	16.3	19.0	24.7	30.7	34.8	40.9	116.3
Blue Store	43.0	42.0	35.7	22.1	18.5	9.5		6.8	9.5	15.2	21.2	25.3	31.4	106.8
Upper Red Hook	49.8	48.8	42.5	28.9	25.3	16.3	6.8		2.7	8.4	14.4	18.5	24.6	100.0
Red Hook	52.5	51.5	45.2	31.6	28.0	19.0	9.5	2.7		5.7	11.7	15.8	21.9	97.3
Rhinebeck	58.2	57.2	50.9	37.3	33.7	24.7	15.2	8.4	5.7		6.0	10.1	16.2	91.6
Staatsburg	64.2	63.2	56.9	43.3	39.7	30.7	21.2	14.4	11.7	6.0		4.1	10.2	85.6
Hyde Park	68.3	67.3	61.0	47.4	43.8	34.8	25.3	18.5	15.8	10.1	4.1		6.1	81.5
Poughkeepsie	74.4	73.4	67.1	53.5	49.9	40.9	31.4	24.6	21.9	16.2	10.2	6.1		75.4
New York City	149.8	148.8	142.5	128.9	125.3	116.3	106.8	100.0	97.3	91.6	85.6	81.5	75.4	

DETROIT and SOUTH BEND
OR ANYWHERE

An *abundance* of *enjoyable features* along the road, but an *over abundance* of *menacing features on the road.* Chances are a *thousand* to *one* in favor of the *menacing features* winning out — unless you squelch them.

You know that a succession of punctures and blow-outs will spoil the effect of *any trip* and ruffle the temper of a Saint—besides—tearing *big* holes in the pocket-book.

The *best* move *you* can make, *before* taking *any* trip—a block or a thousand miles—is to have your tires treated with

KEMIZITE

It Heals Punctures

The only absolute-harmless-permanent puncture healer

Guaranteed "Money Back" Basis

Clean — odorless	Only small quantity needed
Not a cement	Does not reduce resiliency
Not gummy	Does not interfere with vulcanization
Not sticky	Eliminates 75% of blow-outs
Not a filler	Increases mileage

Proportion — 5% Kemizite — 95% Air

Thousands of auto owners are using *KEMIZITE* with *absolute satisfaction.* More down right enjoyment than they ever experienced with tires before, and at greatly *decreased* expense.

This is the move for *you* to make. No matter what you *remember* of the *past—do this now.* Investigate *KEMIZITE*—satisfy yourself. Remember a "money back" guarantee goes with it.

AUTO TIRE-SECURITY COMPANY

231 Michigan Ave. = = = = Chicago

TABLE OF DISTANCES

	New York City	Yonkers	Hastings	Dobbs Ferry	Irvington	Tarrytown	Ossining	Croton	Peekskill	Cold Spring	Fishkill Village	WappingersFalls	Poughkeepsie	Albany
New York City		14.2	18.7	20.2	21.4	24.5	30.6	34.3	42.1	53.5	62.7	67.8	75.4	149.8
Yonkers	14.2		4.5	6.0	7.2	10.3	16.4	20.1	27.9	39.3	48.5	53.6	61.2	135.6
Hastings	18.7	4.5		1.5	2.7	5.8	11.9	15.6	23.4	34.8	44.0	49.1	56.7	131.1
Dobbs Ferry	20.2	6.0	1.5		1.2	4.3	10.4	14.1	21.9	33.3	42.5	47.6	55.2	129.6
Irvington	21.4	7.2	2.7	1.2		3.1	9.2	12.9	20.7	32.1	41.3	46.4	54.0	128.4
Tarrytown	24.5	10.3	5.8	4.3	3.1		6.1	9.8	17.6	29.0	38.2	43.3	50.9	125.3
Ossining	30.6	16.4	11.9	10.4	9.2	6.1		3.7	11.5	22.9	32.1	37.2	44.8	119.2
Croton	34.3	20.1	15.6	14.1	12.9	9.8	3.7		7.8	19.2	28.4	33.5	41.1	115.5
Peekskill	42.1	27.9	23.4	21.9	20.7	17.6	11.5	7.8		11.4	20.6	25.7	33.3	107.7
Cold Spring	53.5	39.3	34.8	33.3	32.1	29.0	22.9	19.2	11.4		9.2	14.3	21.9	96.3
Fishkill Village	62.7	48.5	44.0	42.5	41.3	38.2	32.1	28.4	20.6	9.2		5.1	12.7	87.1
WappingersFalls	67.8	53.6	49.1	47.6	46.4	43.3	37.2	33.5	25.7	14.3	5.1		7.6	82.0
Poughkeepsie	75.4	61.2	56.7	55.2	54.0	50.9	44.8	41.1	33.3	21.9	12.7	7.6		74.4
Albany	149.8	135.6	131.1	129.6	128.4	125.3	119.2	115.5	107.7	96.3	87.1	82.0	74.4	

Table of Mileage

		MILES
South Bend to	Lakeville	10.5
" "	Lapaz	16.3
" "	Plymouth	24.5
" "	Argos	32.6
" "	Rochester	44.5
" "	Perrysburg	58.1
" "	Mexico	63.9
" "	Peru	69.8
" "	Bunker Hill	78.7
" "	Miami	82.5
" "	Kokomo	93.0
" "	Sharpsville	102.8
" "	Tipton	112.5
" "	Atlanta	118.4
" "	Arcadia	122.0
" "	Cicero	125.2
" "	Noblesville	131.5
" "	Indianapolis	155.2
Indianapolis to	Noblesville	23.7
" "	Cicero	30.0
" "	Arcadia	33.2
" "	Atlanta	36.8
" "	Tipton	42.7
" "	Sharpsville	52.4
" "	Kokomo	62.2
" "	Miami	72.7
" "	Bunker Hill	76.5
" "	Peru	85.4
" "	Mexico	91.3
" "	Perrysburg	97.1
" "	Rochester	110.7
" "	Argos	122.6
" "	Plymouth	130.7
" "	Lapaz	138.9
" "	Lakeville	144.7
" "	South Bend	155.2

Table of Distances

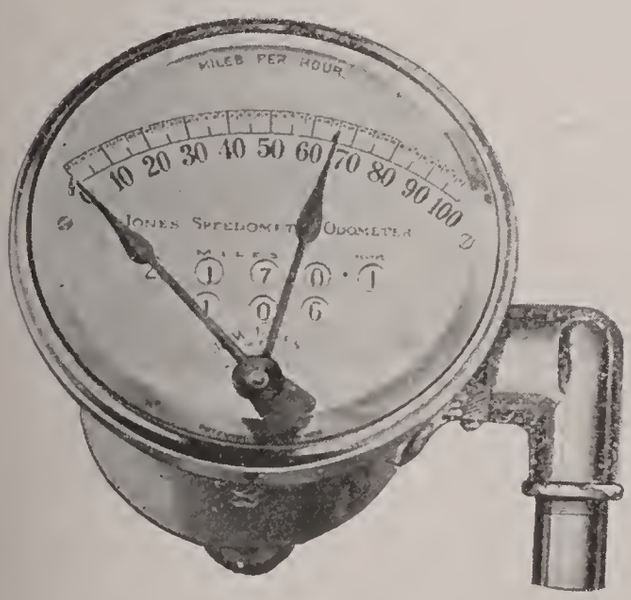
	MILES
South Bend to Lakeville	10.5
Lakeville to Lapaz	5.8
Lapaz to Plymouth	8.2
Plymouth to Argos	8.1
Argos to Rochester	11.9
Rochester to Perrysburg	13.6
Perrysburg to Mexico	5.8
Mexico to Peru	5.9
Peru to Bunker Hill	8.9
Bunker Hill to Miami	3.8
Miami to Kokomo	10.5
Kokomo to Sharpsville	9.8
Sharpsville to Tipton	9.7
Tipton to Atlanta	5.9
Atlanta to Arcadia	3.6
Arcadia to Cicero	3.2
Cicero to Noblesville	6.3
Noblesville to Indianapolis	23.7

TURN TO RIGHT AND STOP

If your car is not equipped with a reliable speed-indicator. No use touring without the famous

JONES SPEEDOMETER

The BEST speed-indicator on the market. The PIONEER. The Winner of the R. A. C. Gold Medal for ACCURACY. The Jones is indispensable when touring because—it is absolutely reliable and dependable. It is used by the majority of motorists the world over. It is part equipment of practically every car on tour. See that you have a Jones on your dash. By means of the Odometer you can compute the distance cited on the maps—and you KNOW your speed at all times under all conditions.



Write for folder containing illustrations and prices of all models.

Jones Speedometer Dept.
United Manufacturers, Inc.
Broadway and 76th Street
New York

Table of Distances

TOLEDO—DETROIT

	MILES
Toledo to Erie	11.1
" " Monroe	20.9
" " Trenton	41.7
" " Wyandotte	46.2
" " Detroit	57.0
Detroit to Wyandotte	10.8
" " Trenton	15.3
" " Monroe	36.1
" " Erie	45.9
" " Toledo	57.0
Toledo to Erie	11.1
Erie to Monroe	9.8
Monroe to Trenton	20.8
Trenton to Wyandotte	4.5
Wyandotte to Detroit	10.8

Table of Mileage

ALBANY—SARATOGA SPRINGS

	MILES
Albany to Cohoes	12.2
" " Waterford	14.2
" " Mechanicsville	22.6
" " Maltaville	28.6
" " Dunning Street	30.8
" " Saratoga Springs	38.6
Saratoga Springs to Dunning Street	7.8
" " " Maltaville	10.0
" " " Mechanicsville	16.0
" " " Waterford	24.4
" " " Cohoes	26.4
" " " Albany	38.6

Table of Distances

ALBANY—SARATOGA SPRINGS

	MILES
Albany to Cohoes	12.2
Cohoes to Waterford	2.0
Waterford to Mechanicsville	8.4
Mechanicsville to Maltaville	6.0
Maltaville to Dunning Street	2.2
Dunning Street to Saratoga Springs	7.8

VIVAX
STORAGE BATTERIES

6 VOLT 80 AMPERES
SPECIALLY BUILT FOR
LIGHTING PURPOSES

PRICE------$24.00

WE GUARANTEE SATISFACTION

Why The "VIVAX" Excells

Mechanical Strength; Perfect Insulation; Compact and Clean; No Corrosion of Terminals; Free from Mechanical Defects, or Faulty Workmanship.

The "VIVAX" Battery is especially built to withstand the constant jar of the Automobile and may be used on the heaviest truck or the lightest pleasure Vehicle.

VIVAX IGNITION BATTERIES

6 Volt 60 Amperes	$20.00
6 Volt Special	15.00
6 Volt Junior	11.50

Manufactured by

VIVAX STORAGE BATTERY CO.

2224-2234 Michigan Avenue - CHICAGO, ILLINIOS

Population of Towns

CHICAGO—SOUTH BEND

Chicago	2,049,185
Hammond . . .	15,956
Highlands . . .	25
Hobart	1,390
Wheeler	100
Valparaiso . . .	6,280
Westville . . .	468
La Porte	7,113
New Carlisle . . .	597
South Bend . . .	36,000

Population of Towns

SOUTH BEND—TOLEDO

South Bend	36,000
Mishawaka	5,600
Osceola	1,000
Dunlap	200
Goshen	7,800
Benton	200
Ligonier	2,200
Wawaka	300
Brimfield	200
Kendallville	3,400
Waterloo	1,200
Butler	2,100
Edgerton	1,000
Bryan	3,100
Stryker	1,200
Archbold	1,000
Wauseon	2,100
Delta	1,200
Swanton	900
Toledo	131,000

Population of Towns

TOLEDO—CLEVELAND

Toledo	131,000
Genoa	800
Woodville	800
Hessville	50
Fremont	8,500
Clyde	2,500
Bellview	1,000
Monroeville	1,200
Norwalk	7,000
Townsend	75
Wakeman	300
Kipton	100
Oberlin	4,000
Elyria	8,800
Ridgeville	200
Dover	50
Cleveland	381,800

Population of Towns

CLEVELAND—BUFFALO

Cleveland, O.	381,768
Willoughby, O.	1,753
Mentor, O.	624
Painesville, O.	5,024
Geneva, O.	2,342
Ashtabula, O.	12,949
Conneaut, O.	7,133
West Springfield, Pa.	203
East Springfield, Pa.	591
Girard, Pa.	691
Fairview, Pa.	327
Erie, Pa.	52,733
Wesleyville, Pa.	567
Harbour Creek, Pa.	161
North East, Pa.	2,068
Ripley, N.Y.	810
Westfield, N.Y.	2,430
Portland, N.Y.	552
Brocton, N.Y.	900
Fredonia, N.Y.	4,127
Sheridan, N.Y.	100
Silver Creek, N.Y.	1,944
Irving, N.Y.	50
Buffalo, N.Y.	352,387

Population of Towns

BUFFALO—SYRACUSE

Buffalo	352,387
Snyder	50
Williamsville	905
Clarence	670
Pembroke	310
East Pembroke	405
Batavia	9,180
Byron	342
Bergen	624
Churchville	505
North Chili	101
Rochester	162,608
Pittsford	1,000
Egypt	162
Macedon	592
Palmyra	1,937
Port Gibson	50
Phelps	1,306
West Junius	29
Magee Corners	61
Auburn	30,345
Sennett	403
Elbridge	549
Camillius	567
Syracuse	108,374

Population of Towns

SYRACUSE—ALBANY

Syracuse	117,493
De Witt	2,509
Fayetteville	1,304
Mycenae	50
Chittenango	787
Sulivan	159
Canastota	3,030
Oneida	3,420
Oneida Castle	291
Sherill	230
Vernon	380
Kirkland	132
New Hartford	1,007
Utica	62,935
Deerfield	691
West Shuyler	261
East Shuyler	108
Frankfort	2,664
Ilion	5,138
Herkimer	5,555
Little Falls	11,122
St. Johnsville	1,873
Nelliston	634
Palatine Bridge	360
Fonda	1,145
Amsterdam	23,923
Scotia	361
Schenectady	58,369
Albany	98,370

Population of Towns

ALBANY—NEW YORK CITY

Albany	98,370
Rensselaer	10,715
Schodack Center	102
Kinderhook	913
Stuyvesant Falls	792
Stockport	481
Stottville	1,069
Hudson	10,290
Blue Store	134
Upper Red Hook	75
Red Hook	857
Rhinebeck	1,449
Staatsburg	479
Hyde Park	2,873
Poughkeepsie	25,379
Wappingers Falls	3,504
Fishkill Village	589
Nelsonville	624
Cold Spring	2,067
Peekskill	10,562
Buchanan	75
Croton	100
Ossining	7,939
Tarrytown	4,770
Irvington	2,231
Dobbs Ferry	2,888
Hastings	2,002
Yonkers	61,716
New York City	4,014,304

Population of Towns

ALBANY—SARATOGA SPRINGS

Albany	98,360
Cohoes	24,183
Waterford	3,146
Mechanicsville . . .	4,695
Maltaville	92
Dunning Street . . .	50
Saratoga Springs . .	12,538

Population of Towns

SOUTH BEND—INDIANAPOLIS

South Bend	36,000
Lapaz	400
Plymouth	3,656
Argos	1,307
Rochester	3,421
Perrysburg	700
Mexico	500
Peru	11,648
Bunker Hill	568
Miami	390
Kokomo	12,019
Sharpsville	650
Tipton	3,764
Atlanta	1,500
Arcadia	1,413
Cicero	1,603
Noblesville	4,792
Indianapolis	219,154

Condensed Route of the Photo-Auto Maps

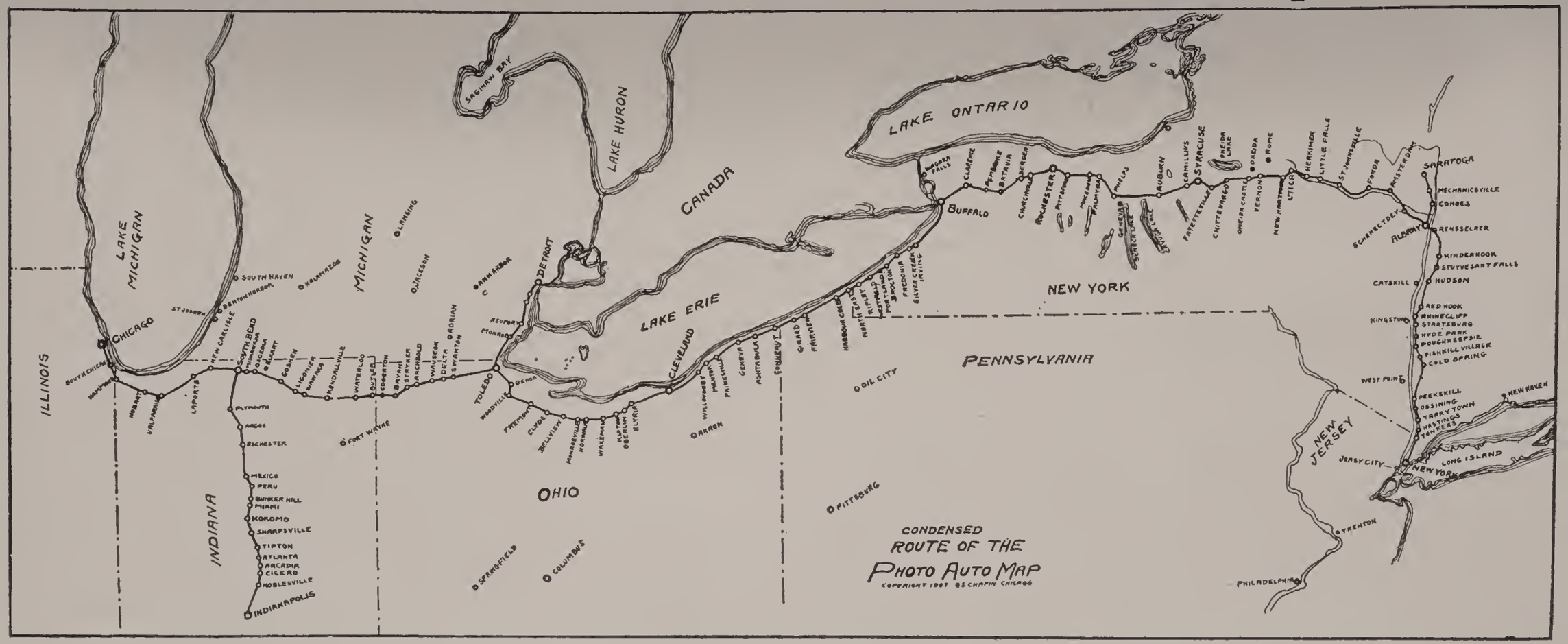


PHOTO-AUTO MAPS

SOUTH BEND TO INDIANAPOLIS
INDIANAPOLIS TO SOUTH BEND

No. 2A

HOTEL OLIVER, SOUTH BEND, IND.

STARTING POINT for run from South Bend to Indianapolis. This hotel is one of the best encountered between Chicago and New York. Every facility possible is provided for the comfort of its guests. Auto parties given special attention. The Twentieth Century Garage is located one block to left.

Go EAST one block from Hotel Oliver on Washington Street to next photo (3A).

Memo .....

THE TWENTIETH CENTURY GARAGE

SOUTH BEND, IND.

ocated one block WEST of Hotel Oliver, and half a block south on right hand side of street. This garage is equipped with a first-class machine shop and special attention is given to tourists.

Memo .....

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No. 3A

urn RIGHT and South from Washington Street into Michigan Street. Make "S" turn on leaving Lakeville and pass through Lapaz, Plymouth and Argos. Next photo forty-four and five-tenths miles, at Rochester.

No. 4A

ROCHESTER

Turn LEFT and East after passing court house from M
Street into 14th Street, just before bend in Main Str
Next photo leaving Rochester, four-tenths of a mile.

Memo .....

No. 5A

Make "S" turn on leaving Rochester. Next photo f
tenths of a mile.

No. 6A

ı slightly to RIGHT and follow most wires. Do not cross R. tracks. Perrysburg, twelve and two-tenths miles. ext photo in Mexico, eighteen miles.

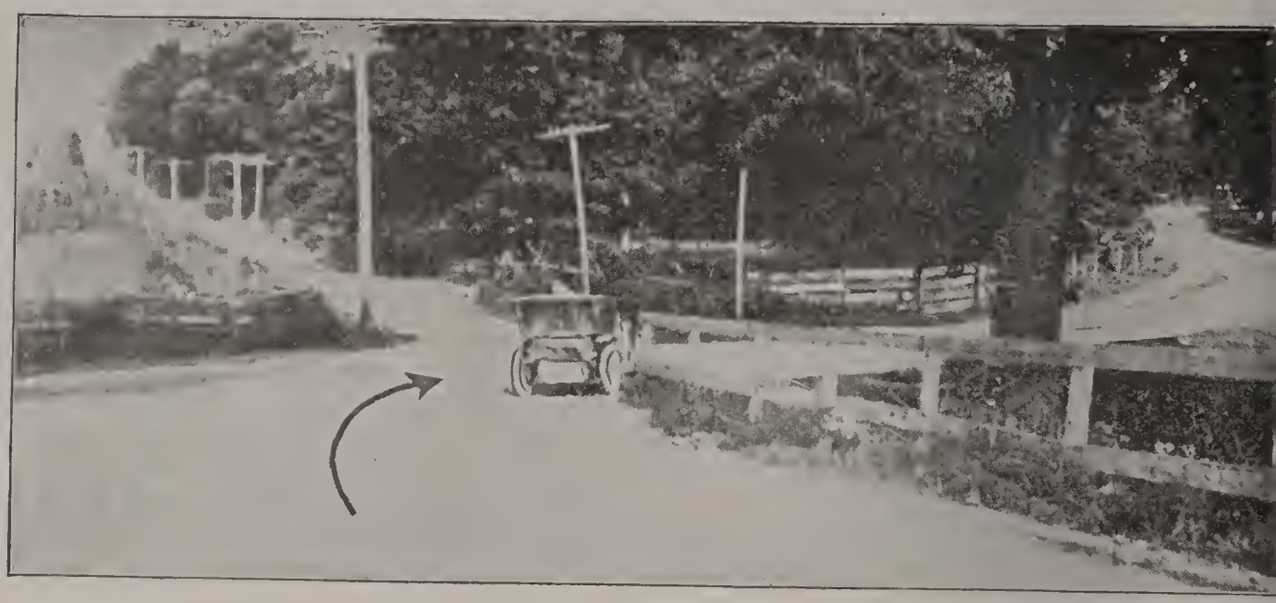
ıo

No. 7A

MEXICO

ı LEFT from Main Street and cross bridge. Next photo end of bridge, one-tenth of a mile.

No. 8A



Turn RIGHT at end of bridge. Next photo in Peru, five a
eight-tenths miles.

Memo .....

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.....

.....

No. 9A

PERU

Turn RIGHT from Broadway into Main Street. Next pho
one and eight-tenths miles.

No. 10A

ırn LEFT from Main Street and cross bridge. Next photo six-tenths of a mile.

emo .....

No. 11A

ırn RIGHT and cross small bridge. Next photo eight-tenths of a mile.

No. 12A

Turn LEFT and South. School on left before turning. Nex photo five and two-tenths miles.

Memo .....

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.....

.....

No. 13A

BUNKER HILL

Turn RIGHT and South on entering Bunker Hill. Next photo at end of road, one and two-tenths miles.

No. 14A

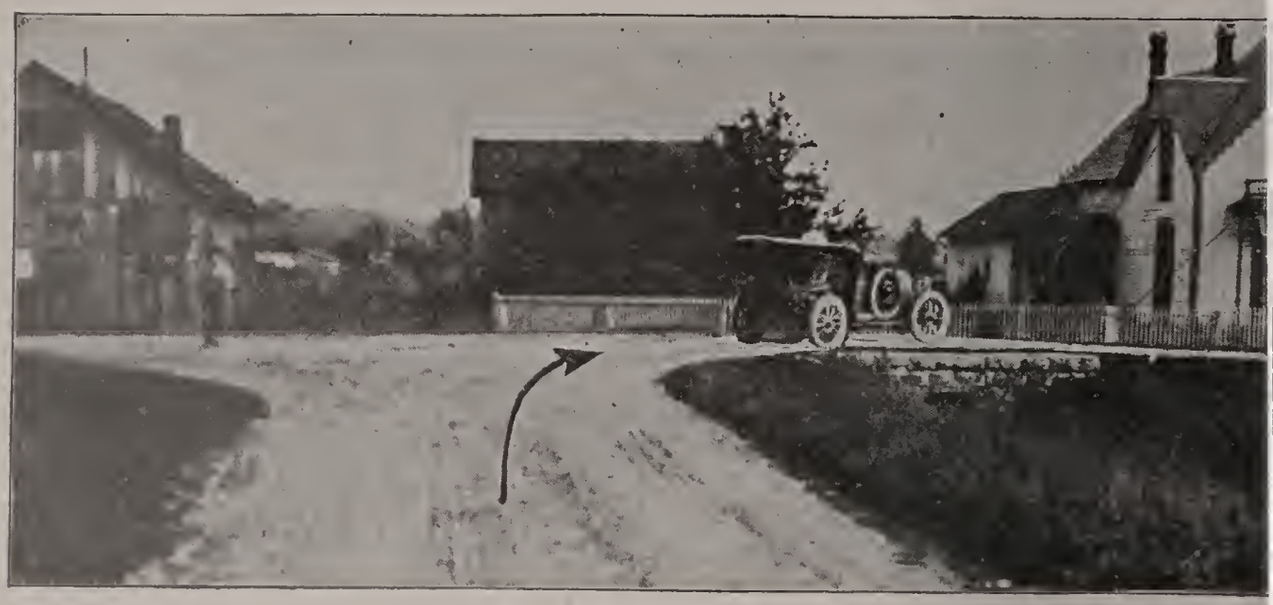
rn RIGHT and West at end of road. Next photo five-tenths of a mile.

emo .....

No. 15A

urn LEFT and South. Log house on left of turn. Next photo at end of road passing along edge of Miami, two and six-tenths miles.

No. 16A



MIAMI

Turn RIGHT and West at end of road passing along edg
Miami. Next photo one mile.

Memo .....

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No. 17A

Turn LEFT and South. Follow most wires. Next photo
end of road in Kokomo, nine and two-tenths miles.

No. 18A

KOKOMO

urn RIGHT at end of Kennedy Street into Taylor Street. Follow car tracks. Next turn where car tracks branch, one-tenth of a mile.

No. 19A

ırn LEFT and South from Taylor Street into Union Street. For the best Garage in Kokomo turn right at the Library, one block after making this turn. The Kokomo Automobile Co. is two and a half blocks from Union St. on Mulberry St. This garage is equipped to do all kinds of repairing and expert workmen are always on hand and will do work quickly.

e Haynes Automobile Co. invites all tourists going through Kokomo to visit their factory on Union Street, near Foster Street. The factory is one of the best equipped automobile works in the country and there is always someone on hand to show in the country and someone is always on hand to show visitors through the entire plant.

No. 20A

Turn LEFT and South-East from Union Street into Tho
Avenue. Fire department on left. Next photo nine-ten
of a mile.

Memo .....

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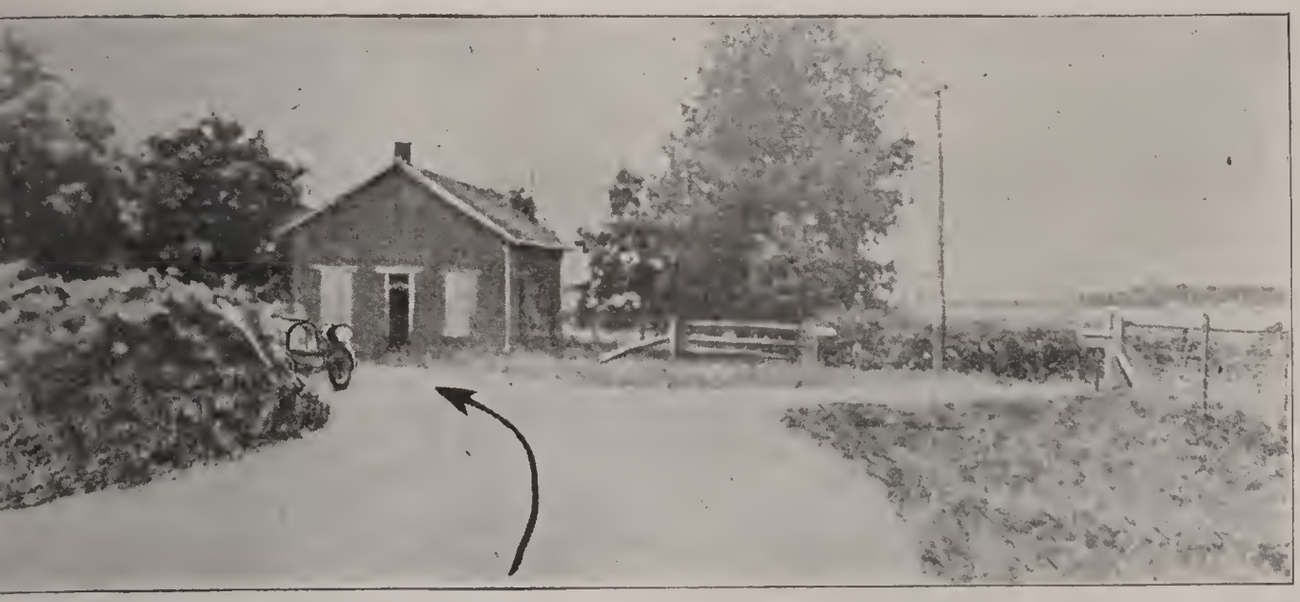
No. 21A

Turn LEFT and East. Next photo at end of road, two a
eight-tenths miles.

No. 22A



ırn LEFT and East at end of road. Next photo at end of road, one and nine-tenths miles.

emo .....

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No. 23A

ırn LEFT and East at end of road. Next photo three-tenths of a mile.

No. 24A

Turn RIGHT and South. Red barns on left before turni
Sharpsville three miles. Next photo six and four-ten
miles.

Memo .....

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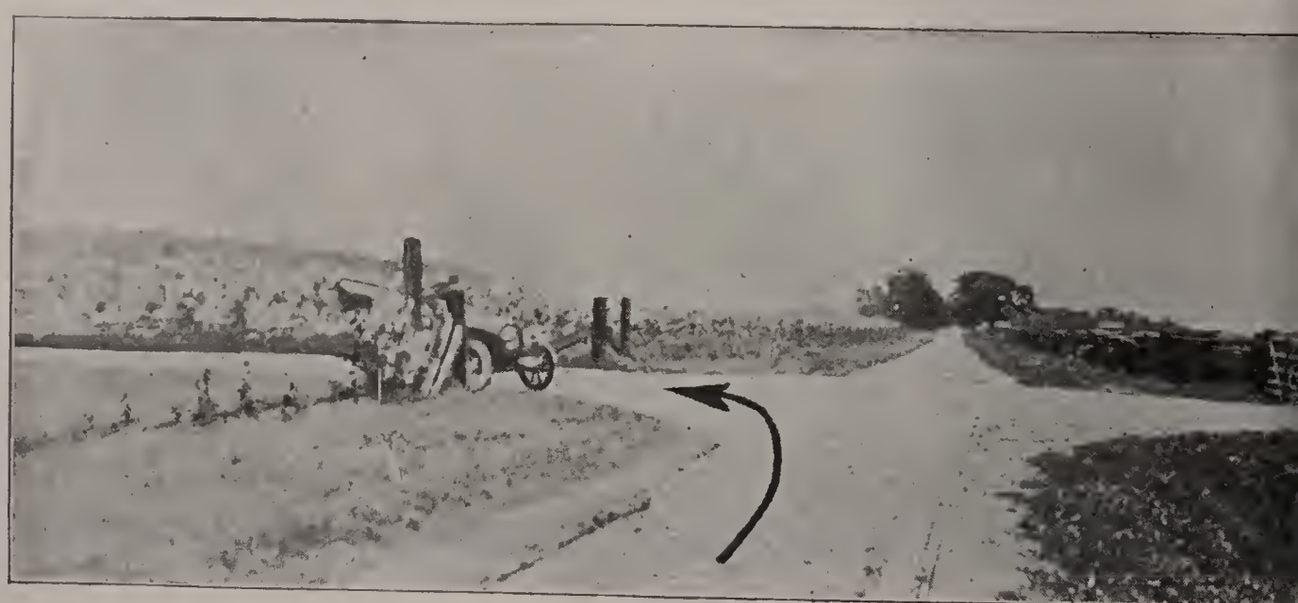
No. 25A



Turn LEFT and East. All four corners vacant. Next pho
two miles.

No. 26A

rn RIGHT and South. All corners vacant. Next photo
at end of road, two and one-tenth miles.

mo .....

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No. 27A

rn RIGHT at end of road. Go fifty feet west and then
urn left and continue south. Next photo at end of road,
ive-tenths of a mile.

No. 28A

Turn LEFT and East at end of road. Next photo three tenths of a mile.

Memo .....

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No. 29A

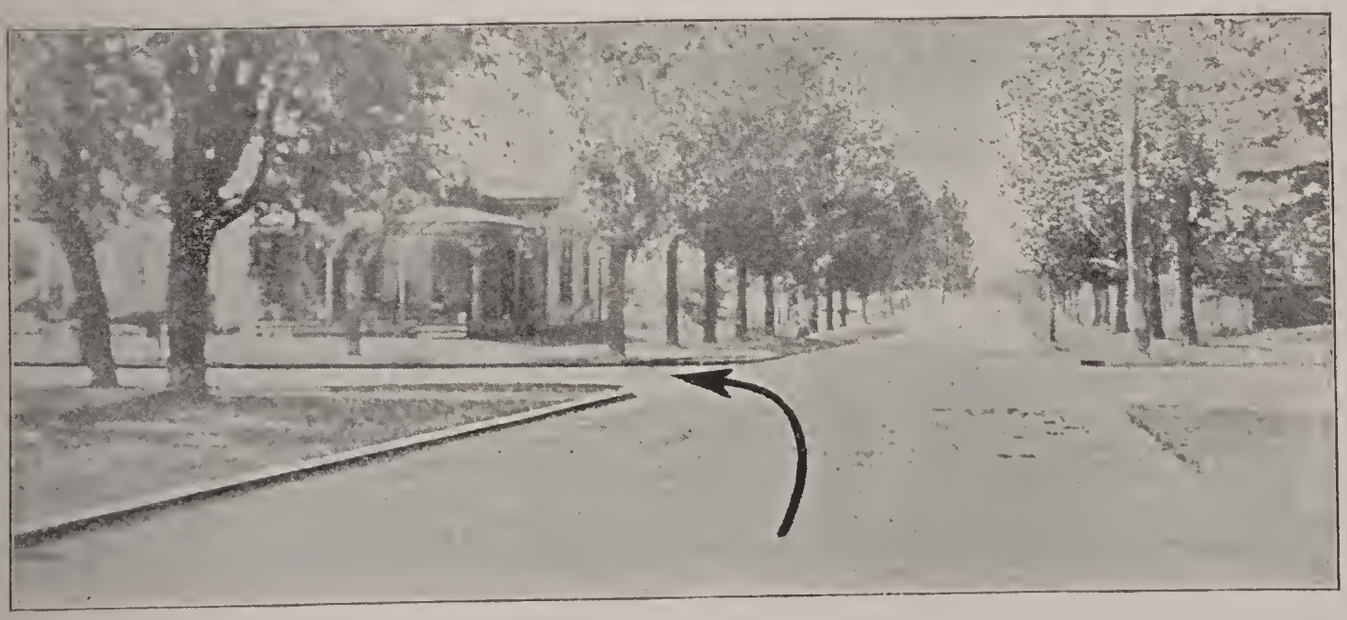
Turn RIGHT and South. All corners vacant. Follow mos wires. Next photo at end of road entering Tipton, five tenths of a mile.

No. 30A

Turn LEFT at end of road on entering Tipton; go one hundred feet and turn right and continue south on Conday Street. Next photo six-tenths of a mile.

Memo .....

No. 31A



Turn LEFT and East from Conday Street into Jefferson Street. Next photo at court house, one-tenth of a mile.

No. 32A

Turn RIGHT and South at court house from Jefferson Street into Main Street. Keep going south after crossing bridge. Next photo at end of road, two and six-tenths miles.

Memo .....

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No. 33A

Turn LEFT and East at end of road. Next photo at church, seven-tenths of a mile.

No. 34A

urn RIGHT and South. Church on right after turning. Next photo at end of road, five-tenths of a mile.

Iemo .....

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No. 35A

Turn LEFT and East at end of road. Follow most wires. Next photo three-tenths of a mile.

No. 36A

Turn RIGHT and South. Follow most wires. Next pho
at end of road entering Atlanta, one and five-tenths mile

Memo .....

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No. 37A

ATLANTA

Turn RIGHT and West at end of road entering Atlant
Next photo three-tenths of a mile.

No. 38A

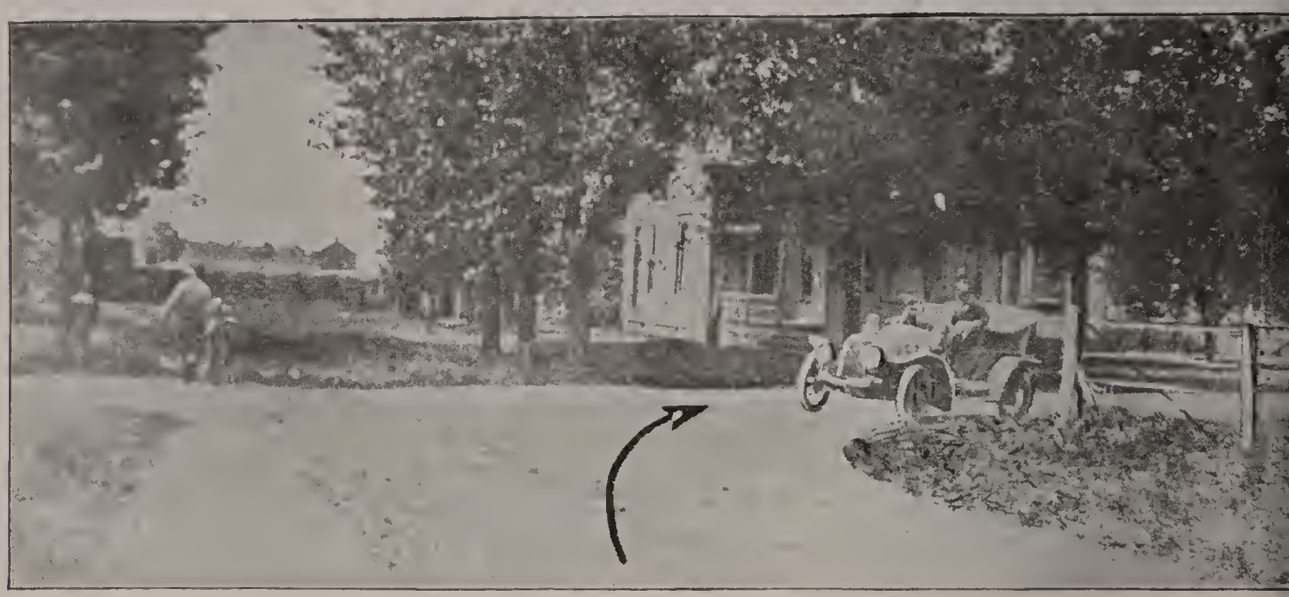
urn LEFT and South. Old blue house on left. Next photo one block.

emo .....

No. 39A

urn RIGHT and West. Next photo at end of road, four-tenths of a mile.

No. 40A



Turn RIGHT and West at end of road. Next photo tw
tenths of a mile.

Memo .....

No. 41A

Turn LEFT and South. Follow wires. Next photo one a
five-tenths miles.

No. 42A

urn RIGHT and South. School on right after turning. Next photo entering Arcadia, one and four-tenths miles.

emo .....

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No. 43A

ARCADIA

urn LEFT and East into Main Street on entering Arcadia. Next photo at end of road, eight-tenths of a mile.

No. 44A

Turn RIGHT and South at end of road. Cicero three an two-tenths miles. Next photo entering Noblesville, nin and five-tenths miles.

Memo .....

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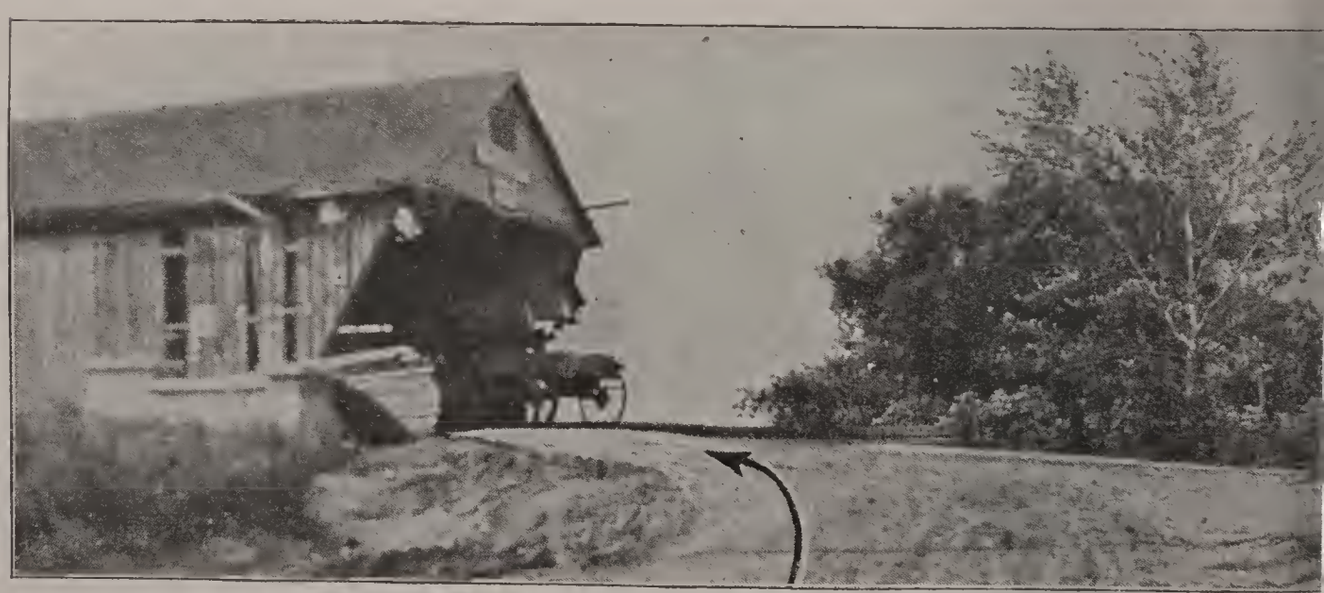
No. 45A



NOBLESVILLE

Turn LEFT and cross bridge into Noblesville. Take road t left after crossing bridge. Next photo one block from bridg

No. 46A

rn RIGHT and South at Court House. Next photo enter-ıng Indianapolis, nineteen and five-tenths miles.

No. 47A

INDIANAPOLIS

ırn LEFT and South from 38th Street into Meridian Street. Next photo Soldiers' and Sailors' Monument, four and one-tenth miles. For the best Garage go to the Fisher Auto-mobile Company, 330 N. Illinois Street. Turn right on Vermont Street, three blocks before reaching Monument, go one block and turn left into Illinois Street. The garage is in the center of the block between Vermont Street and New York Street. This garage is the best and is fully equipped to do any kind of repairing and will give good service in every way.

FISHER'S GARAGE

The Fisher Automobile Company, located at 330 N. Illinoi Street, conduct the largest and best Garage in Indianapolis They are fully equipped to do any kind of repairing an will give good service in every way. Special attentio given to tourists.

Memo .....

No. 48A

SOLDIERS' AND SAILORS' MONUMENT

Memo .....

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The Prest-O-Lite Co. in Indianapolis invites tourists to visit their factory at 20 South East Street. There you can see how the air and gas tanks are filled and tested.

The National Automobile Co. also invites visitors to go through their factory where the National Automobiles are built.

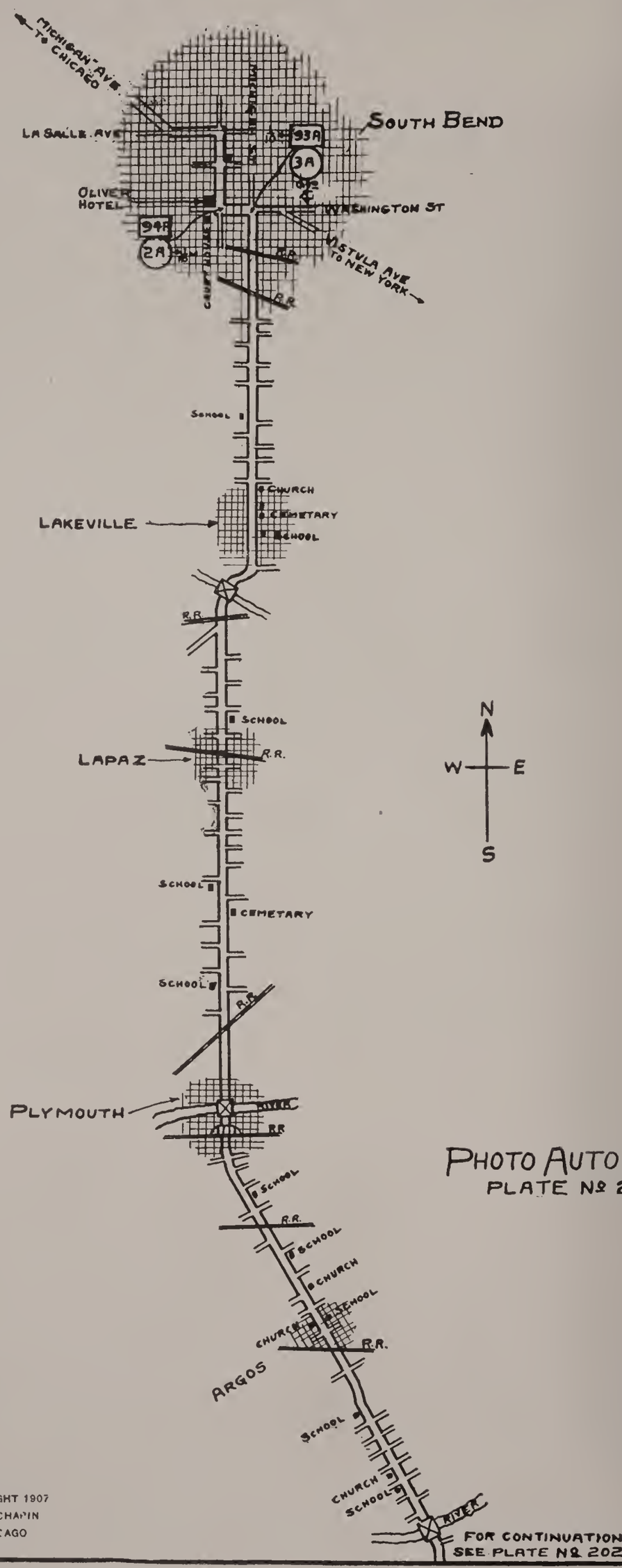

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PLATE Nº 201

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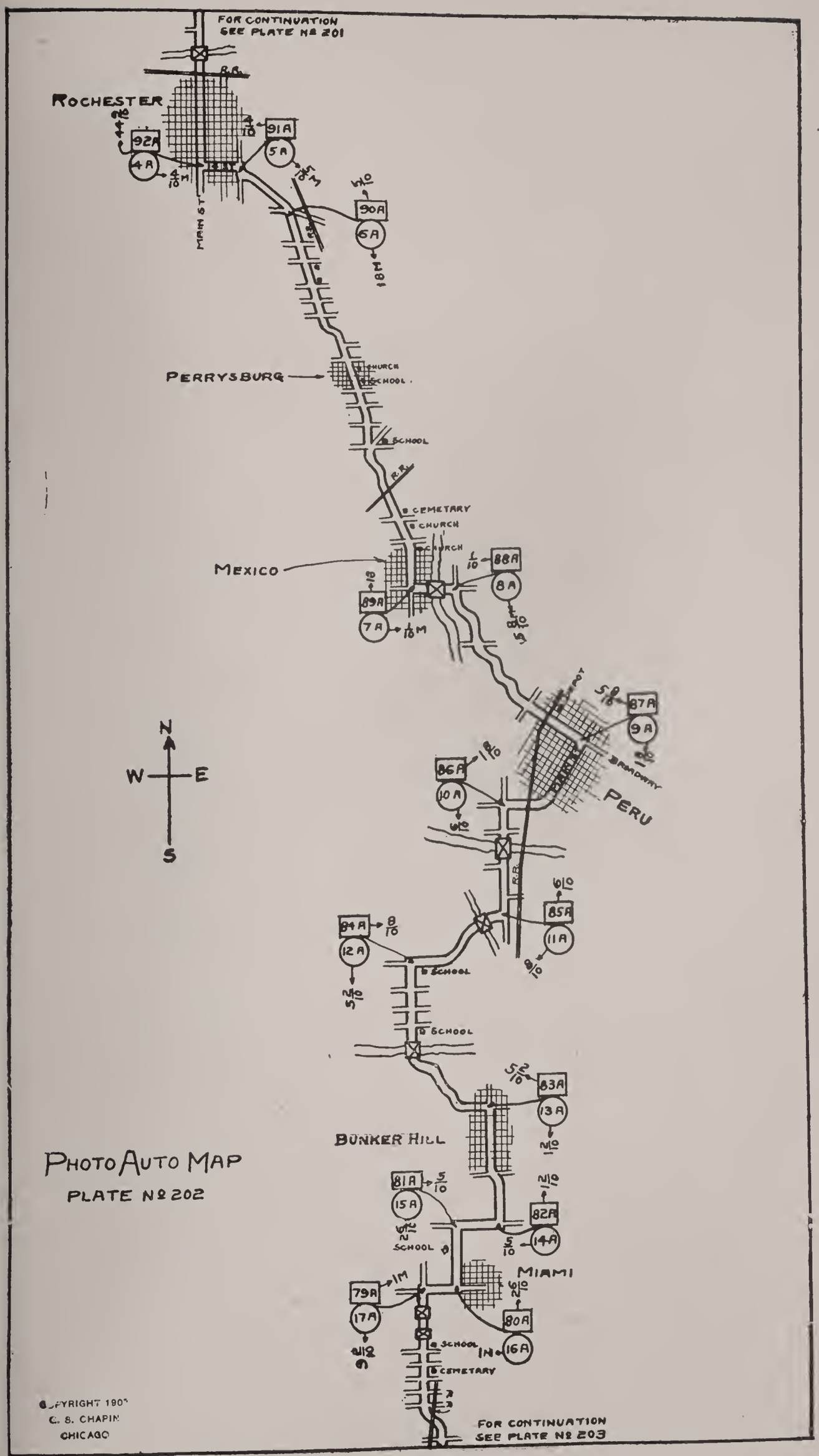
CHICAGO



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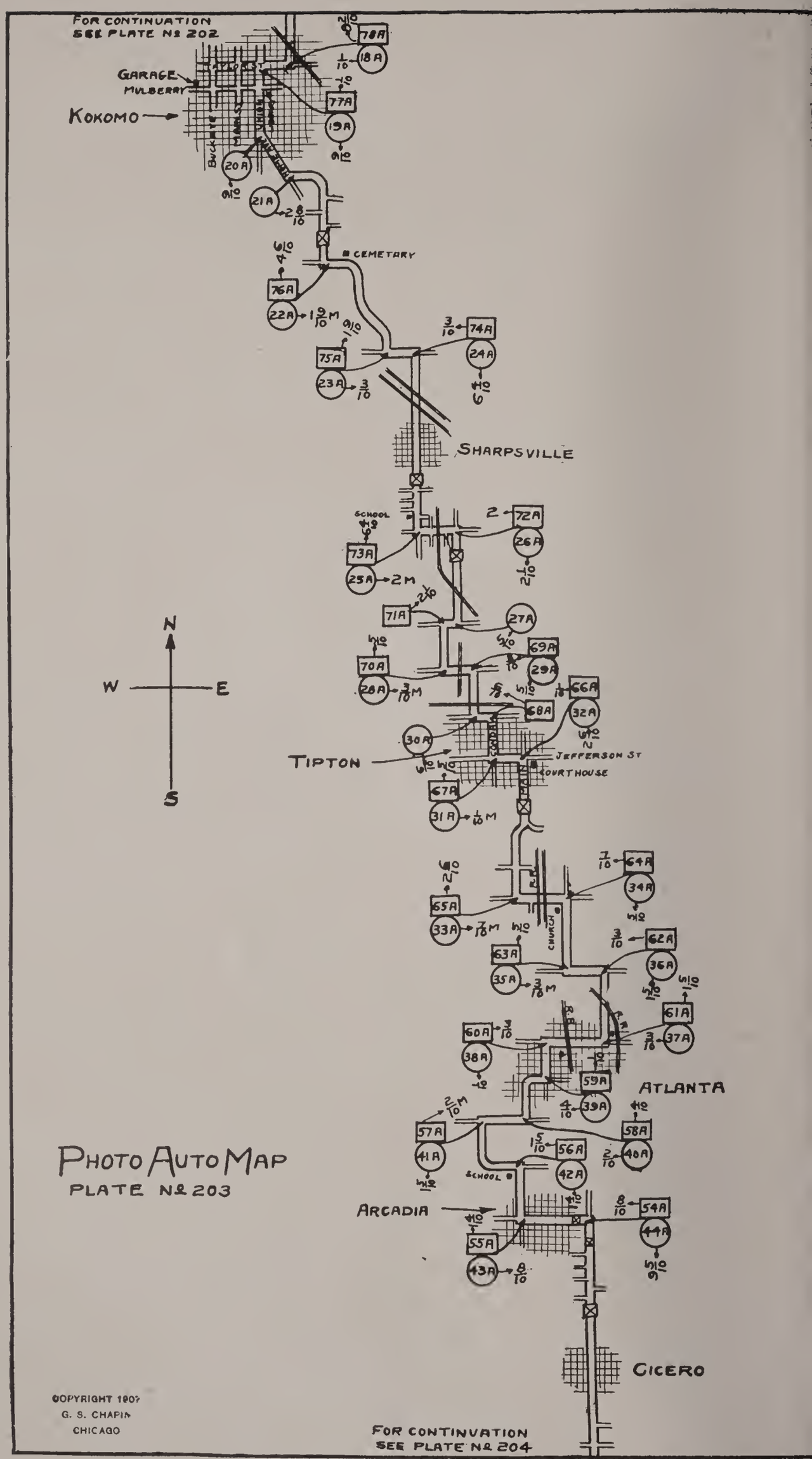

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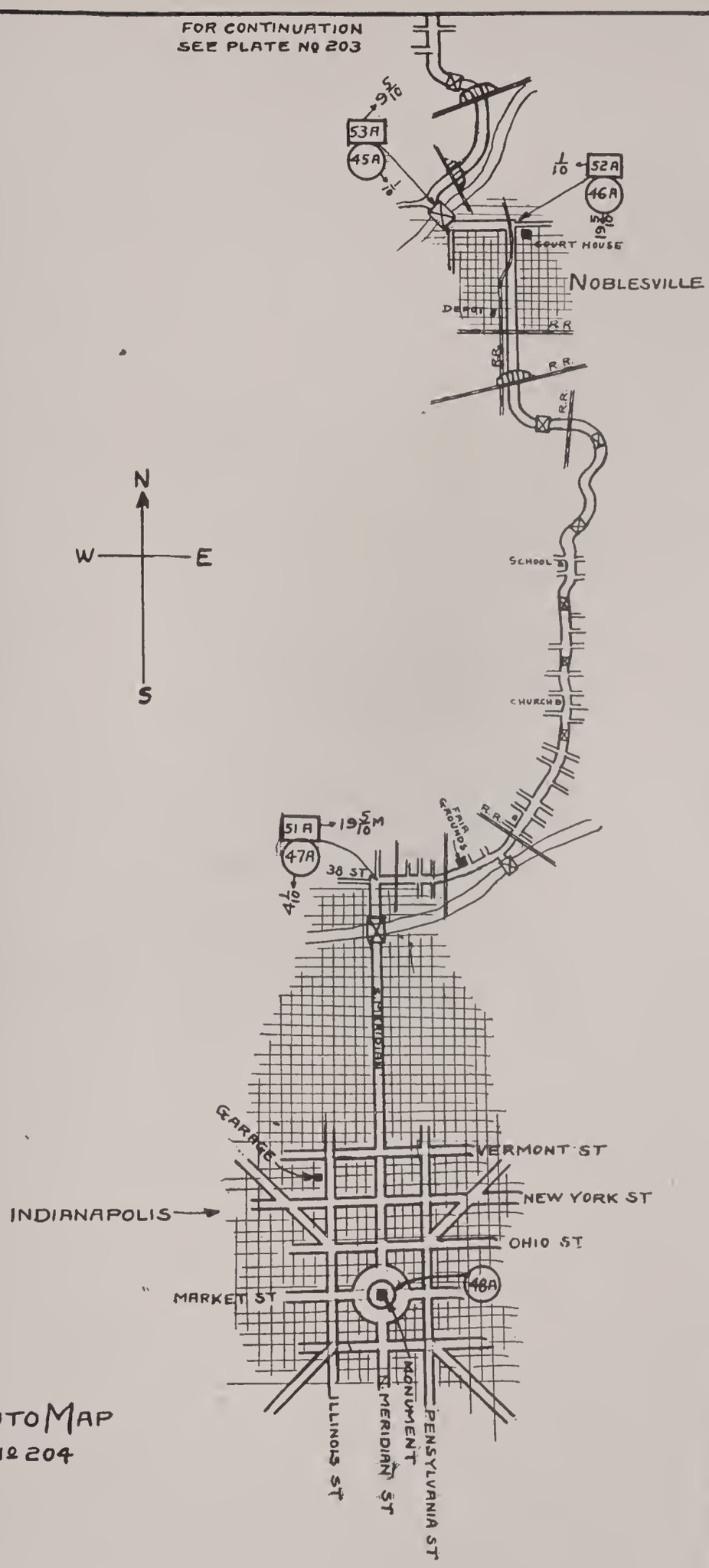

PHOTO AUTO MAP
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PHOTO-AUTO MAPS

INDIANAPOLIS TO SOUTH BEND

FISHER'S GARAGE

The Fisher Automobile Company, located at 330 N. Illinois Street, conduct the largest and best Garage in Indianapolis. They are fully equipped to do any kind of repairing and will give good service in every way. Special attention given to tourists.

Memo .....

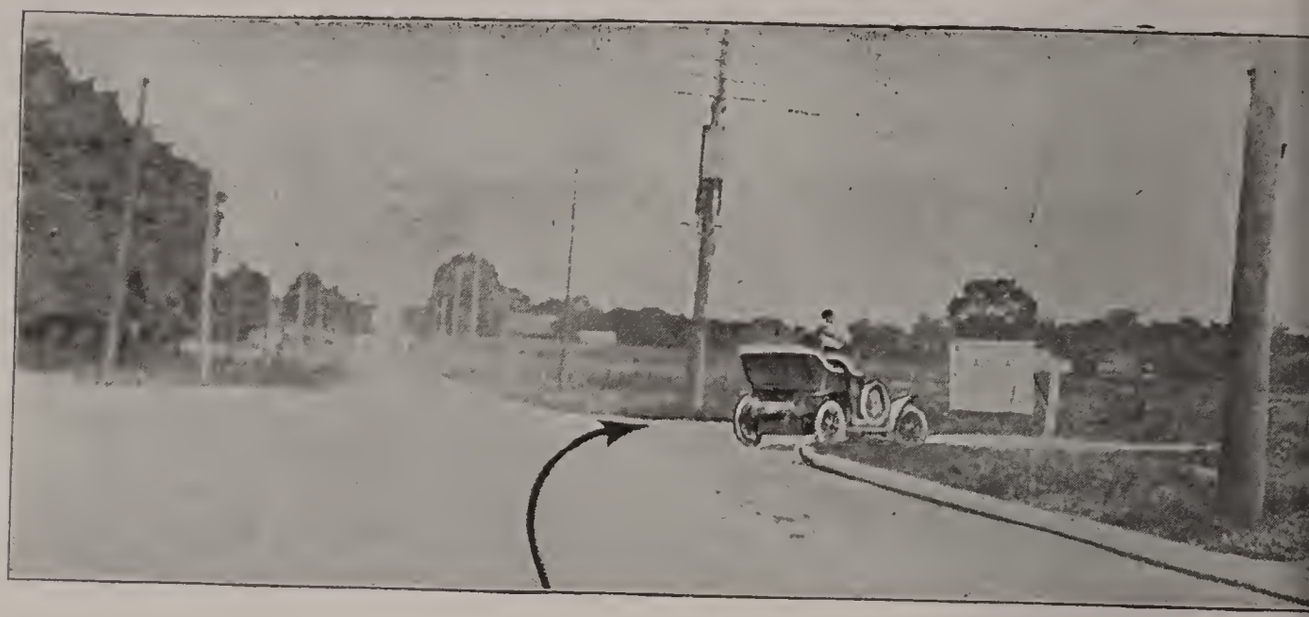
No. 50A

INDIANAPOLIS

Leave the Soldiers' and Sailors' Monument and go North on Meridian Street. Next photo at end of pavement, four and one-tenth miles. For the best Garage in Indianapolis go to the Fisher Automobile Company, 330 N. Illinois Street, one block west and two and one-half blocks north of the Monument. This is the largest garage in the city and will give good service in every way.

Memo .....

No. 51A



Turn RIGHT and East from Meridian Street at end of pav ment into 38th Street. Next photo in Noblesville, ninetee and five-tenths miles.

Memo .....

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No. 52A

NOBLESVILLE

Turn LEFT and West, court house on right before turning Go one block and cross bridge. Next photo at end of bridge

No. 53A

ırn RIGHT at end of bridge. Cicero, six and three-tenths miles. Next photo entering Arcadia, nine and five-tenths miles.

emo .....

No. 54A

ARCADIA.

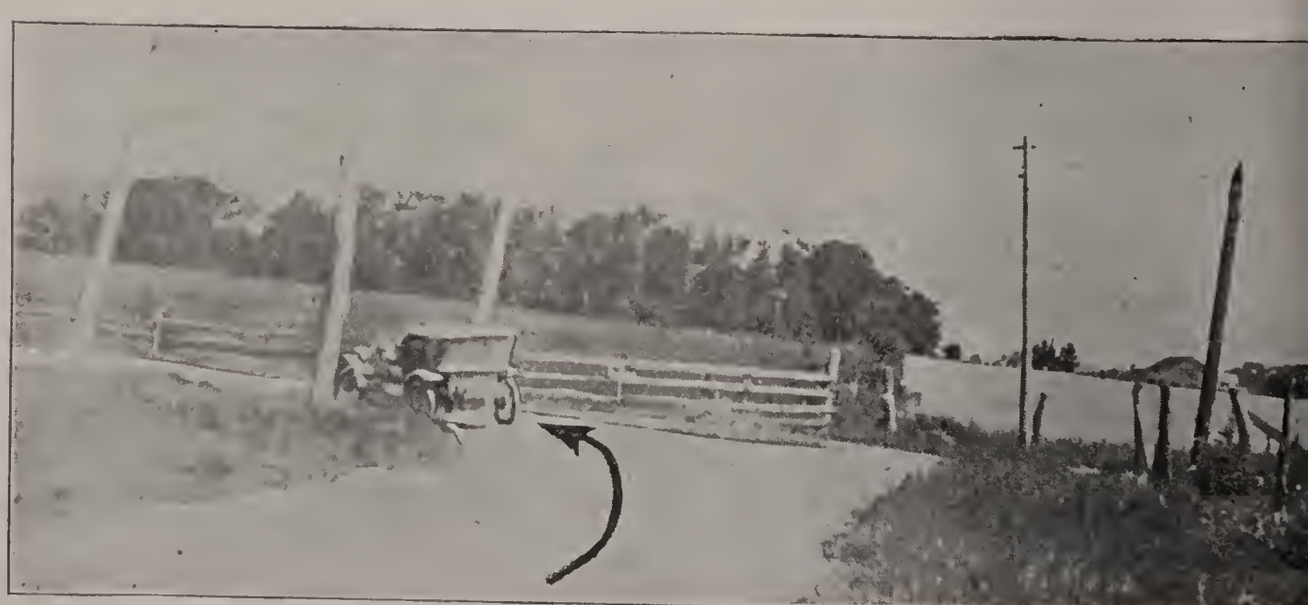
rn LEFT and West entering Arcadia. Next photo leaving Arcadia, eight-tenths of a mile.

No. 55A

Turn RIGHT and North from Main Street. Next photo end of road, one and four-tenths miles.

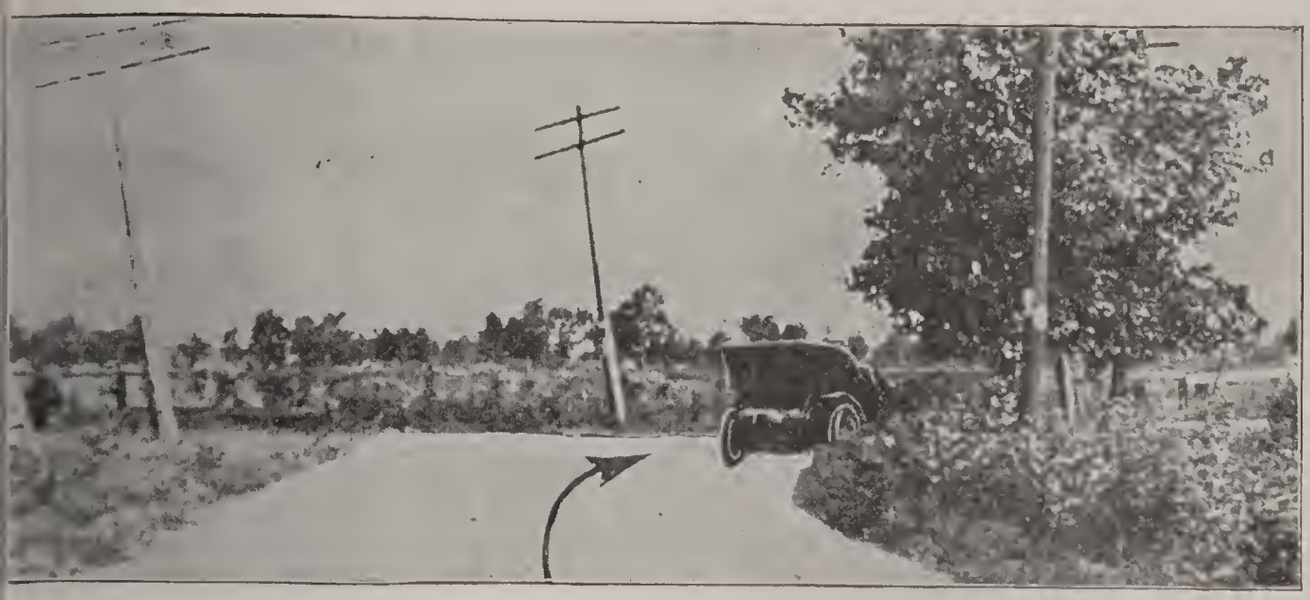
Memo .....

No. 56A



Turn LEFT and West at end of road. Next photo at en of road, one and five-tenths miles.

No. 57A



urn RIGHT and East at end of road. Next photo entering Atlanta, two-tenths of a mile.

emo .....

No. 58A

ATLANTA

urn LEFT and North entering Atlanta. Next photo four-tenths of a mile.

No. 59A

Turn LEFT and North into first street after turn in road. Next photo at end of street, one-tenth of a mile.

Memo .....

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No. 60A

Turn RIGHT and East at end of street. Next photo at interurban station, three-tenths of a mile.

No. 61A

rn LEFT and North at interurban station. Next photo at end of road, one and five-tenths miles.

emo .....

No. 62A

rn LEFT and West at end of road. Next photo three-tenths of a mile.

No. 63A

Turn RIGHT and North; follow wires. Next photo aft
passing church, five-tenths of a mile.

Memo .....

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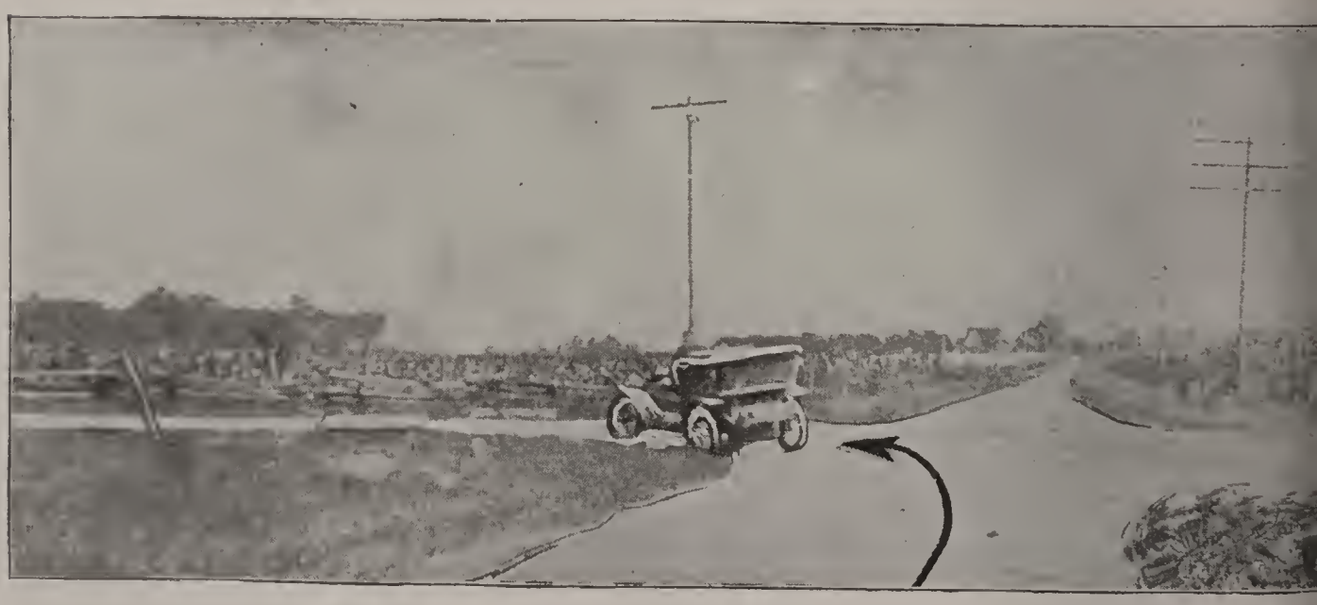
No. 64A



Turn LEFT and West. Church on left before turning. Nex
photo seven-tenths of a mile.

No. 65A

rn RIGHT and North. All corners vacant. Follow most wires. Next photo in Tipton, two and six-tenths miles.

mo .....

No. 66A

TIPTON

rn LEFT from Main Street into Jefferson Street. Court house on right before turning. Next photo one-tenth of a mile.

No. 67A

Turn RIGHT and North from Jefferson Street into Cond
Street. Next photo at end of street, five-tenths of a mil

Memo .....

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No. 68A

Turn LEFT and go one hundred feet West; then turn righ
and continue north. Next photo at end of road, six-tenth
of a mile.

No. 69A

urn LEFT and West at end of road. Follow wires. Next photo three-tenths of a mile.

Memo .....

No. 70A

urn RIGHT and North. Follow most wires. Next photo at end of road, five-tenths of a mile.

No. 71A

Turn RIGHT and East at end of road. Go fifty feet and tu
left and continue north. Next photo two and one-ten
miles.

Memo .....

No. 72A

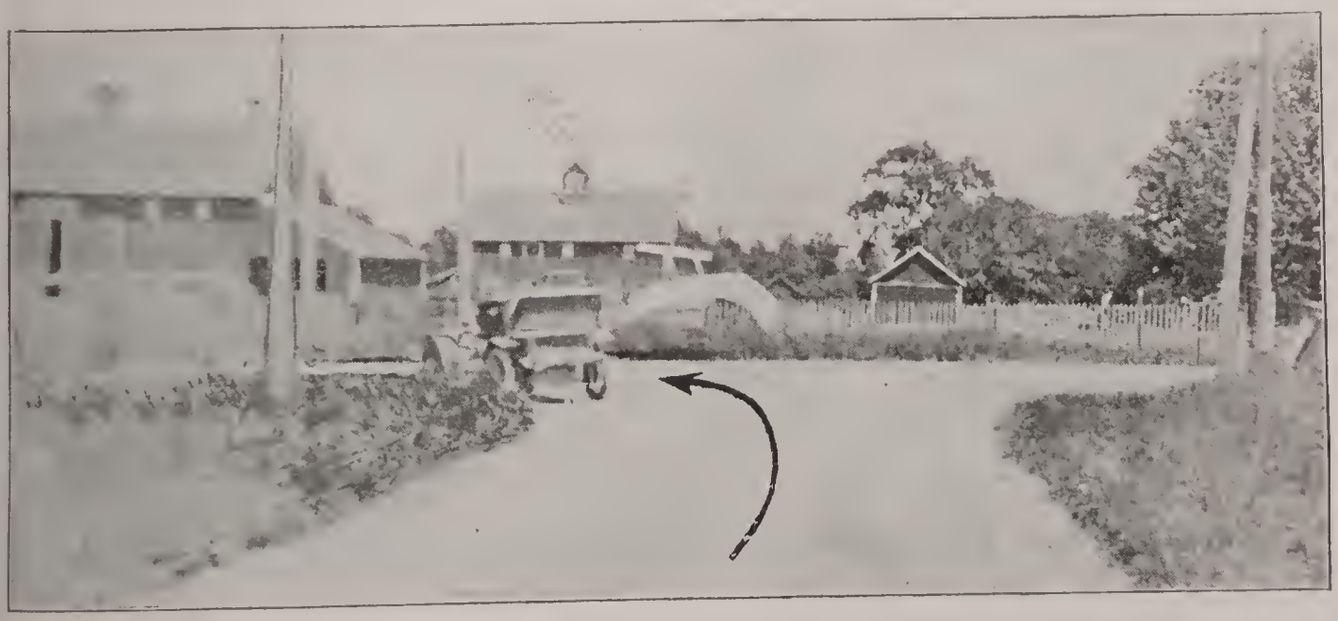
Turn LEFT and West. Corners vacant. This corner is ver
easily missed; watch it! Next turn two miles.

No. 73A

Turn RIGHT and North. Corners vacant. Sharpsville three and four-tenths miles. Next photo at end of road, six and four-tenths miles.

Memo .....

No. 74A



Turn LEFT and West at end of road. Next photo three-tenths of a mile.

No. 75A

Turn RIGHT and North. Next photo one and nine-tenth miles.

Memo .....

No. 76A

Turn RIGHT and North. Next photo in Kokomo, four and six-tenths miles.

No. 77A

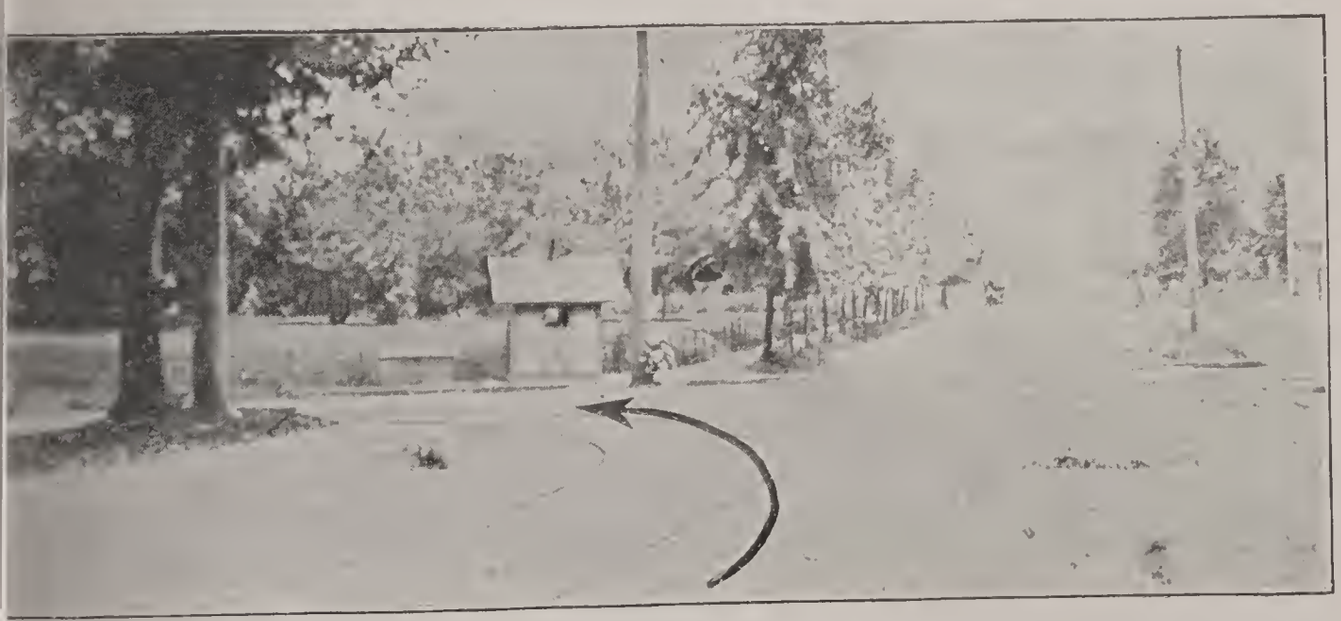
KOKOMO

'urn RIGHT and East. Follow car tracks. For the best Garage in Kokomo turn left into Mulberry Street at Library, one block before making this turn. The Kokomo Automobile Co. is equipped to do all kinds of repairing and will do good work very quickly. Next turn one-tenth of a mile.

he Haynes Automobile Co. invites all tourists going through Kokomo to visit their factory on Union Street, near Foster Street. The factory is one of the best equipped in the country and someone is always on hand to show visitors through the entire plant.

Memo .....

No. 78A



'urn LEFT and North: Follow car tracks. Next turn nine and three-tenths miles.

No. 79A

Turn RIGHT and East. Follow most wires. Next photo a
edge of Miami, one mile.

Memo .....

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No. 80A

MIAMI

Turn LEFT and North at edge of Miami. Follow wires. Nex
photo at end of road, two and six-tenths miles.

No. 81A

Turn RIGHT and East at end of road. Next photo five-tenths of a mile.

Memo .....

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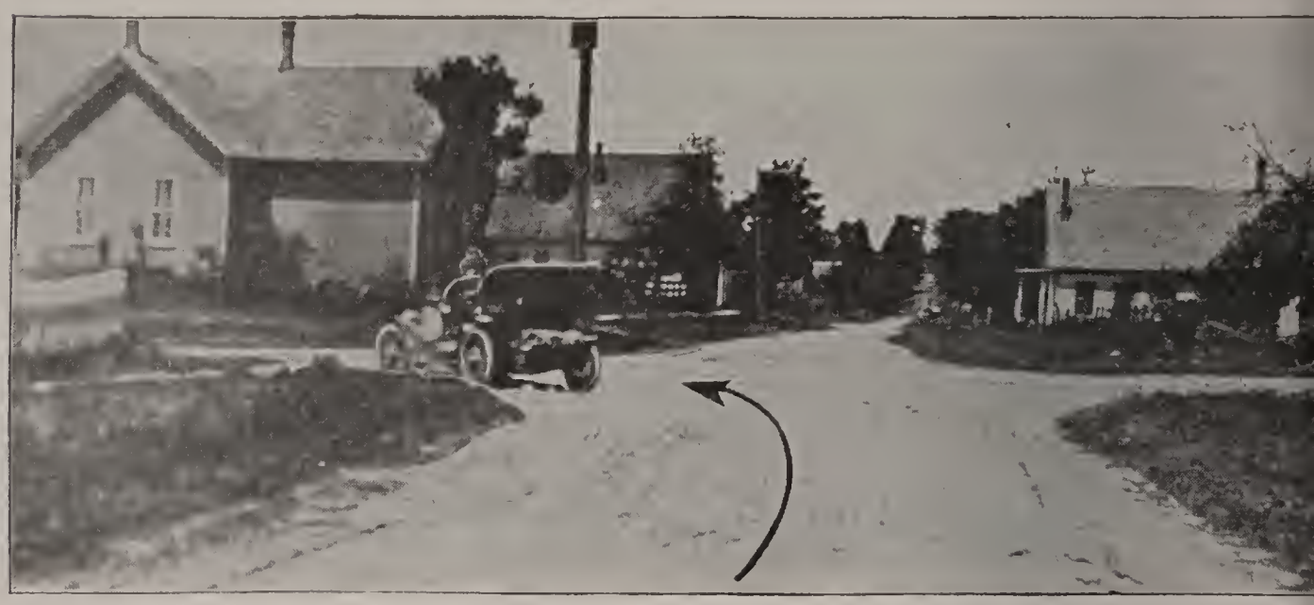
No. 82A

Turn LEFT and North. Large barns on right before turning. Next photo leaving Bunker Hill, one and two-tenths miles.

No. 83A



BUNKER HILL

Turn LEFT and West leaving Bunker Hill. Next photo a
end of road, five and two-tenths miles.

Memo .....

No. 84A

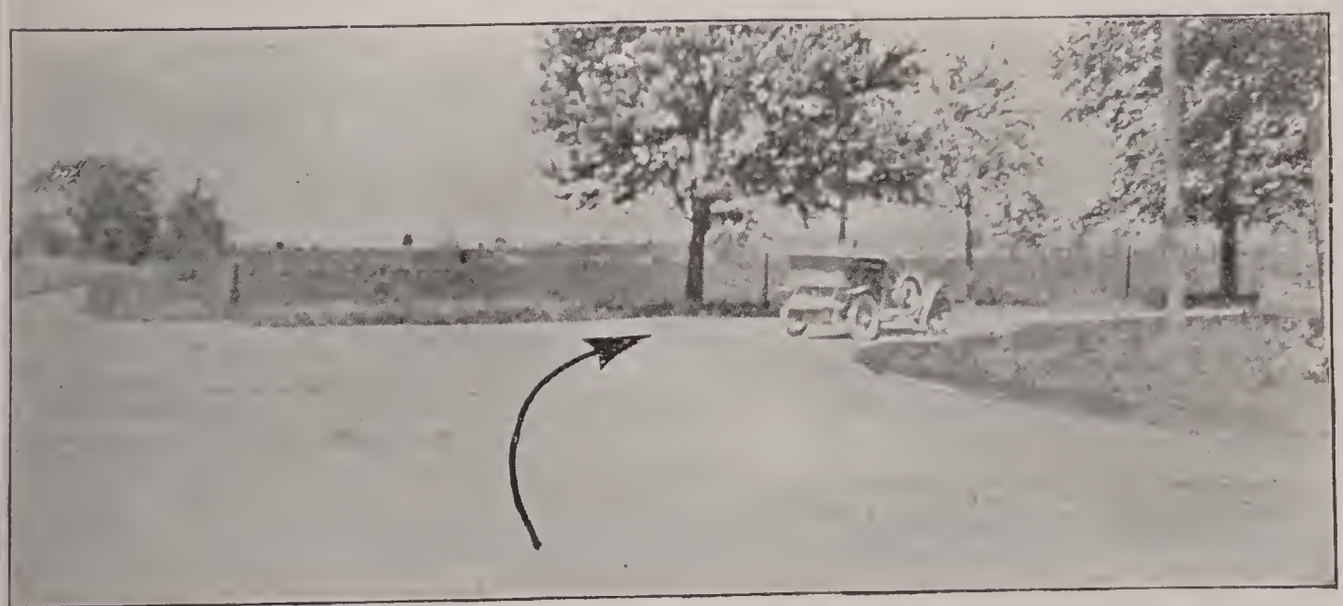
Turn RIGHT and East at end of road. Next photo at en
of road, eight-tenths of a mile.

No. 85A

Turn LEFT and North at end of road. Next photo six-tenths of a mile.

Memo .....

No. 86A



Turn RIGHT and East. Follow car tracks. Next photo in Peru, one and eight-tenths miles.

No. 87A

PERU

Turn LEFT from Main Street into Broadway. Next turn five and eight-tenths miles.

Memo .....

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No. 88A

Turn LEFT and cross bridge into Mexico. Next photo in Mexico, one-tenth of a mile.

No. 89A

MEXICO

rn RIGHT and North into Main Street. Perrysburg, five and eight-tenths miles. Next photo eighteen miles.

emo .....

No. 90A

rn LEFT slightly and go straight for tower in Rochester. Next turn entering Rochester, five-tenths of a mile.

No. 91A

ROCHESTER

Make "S" turn entering Rochester. Next photo at end of street, four-tenths of a mile.

Memo .. ..

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No. 92A

Turn RIGHT and North at end of 14th Street into Main Street. Argos, twelve and two-tenths miles. Plymouth, twenty miles. Lapaz, twenty-eight and six-tenths miles. Lakeville, thirty-four miles. Make "S" turn entering Lakeville and continue north. Next photo South Bend, forty-four and five-tenths miles.

No. 93A

SOUTH BEND

Turn LEFT and West from Michigan Street into Washington Street. Next photo (94A) one block.

Memo .....

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THE TWENTIETH CENTURY GARAGE

SOUTH BEND, IND.

Located one block WEST of Hotel Oliver, and half a block south on right hand side of street. This garage is equipped with a first-class machine shop and special attention is given to tourists.

No. 94A

HOTEL OLIVER, SOUTH BEND, IND.

The Hotel Oliver is one of the best Hotels in the West. It i run on both the American and European plan and th cuisine is excellent. The finishing point for run fron Indianapolis to South Bend.

Memo .....

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is good enough for **5000 miles** more if equipped with a

Triple Tread

This is a worn out casing as it comes to us to be MADE NEW

3-ply steel studded, specially prepared leather and made a part of the old tire.

Puncture proof and **non-skid.**

Costs very little more than the ordinary rubber retread.

Remember we guarantee Triple Tread 5000 miles.

Send the Old Casing at once.

When your old casing is MADE NEW it looks like this—Guaranteed 5000 miles.

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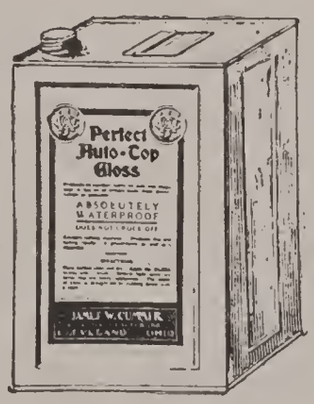
Auto Top Gloss



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For all kinds of Leather, Pantasote or Rubber.

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Unexcelled for all kinds of Leather Upholstered Furniture such as Chairs, Sofas, etc.

PERFECT AUTO GLOSS

Does not crack or come off. Perfectly waterproof. Dries in thirty minutes. Anyone can do the work.

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CLEVELAND, OHIO

Write for Sample

At Your Dealer
$3.00 per gallon
$1.75 per half gal
90c per quart
Or With Cash Orde

AKRON REPAIR KIT—$1.00 Complete

NO MORE FLAT TIRES

Just Carry an AKRON REPAIR KIT

An acid cure process that vulcanizes the cement to the rubber, making it one solid piece, and by which any repair to your inner tube or casing is permanently made at any time and any place. **YOU ARE ON YOUR WAY IN A MOMENT**—and there is no hard work about it either, doesn't even soil your hands. Heat, moisture or hard usage will absolutely not affect a repair properly made with this cement and solution, and it's not injurious to the finest quality rubber.

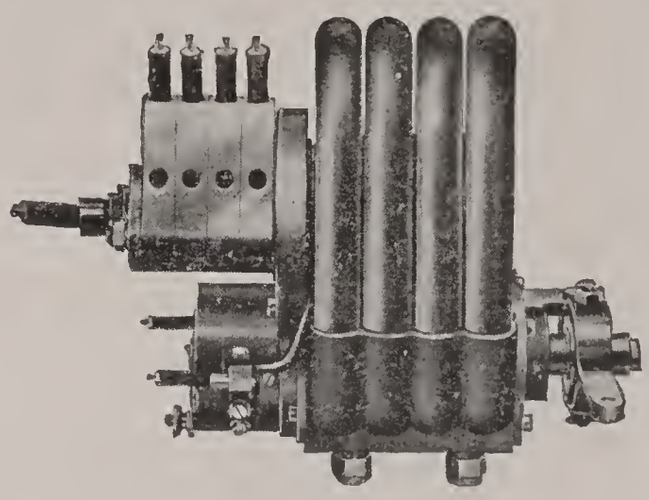
A SEASON'S SUPPLY FOR THE MOTORIST

all put up in a handy little box, with all needed tools, rubber patches, etc. For sale by dealers and jobbers. If your dealer does not handle it, write direct.

Write us about the "Akron" Tire Boot and "Akron" Inside Repair Patch. We also manufacture the "Hold Tight" Aluminum Vise for inner tube patching. Price, delivered, $1.25.

THE EMPIRE MANUFACTURING COMPANY, AKRON, OHIO

A HEINZE MAGNETO



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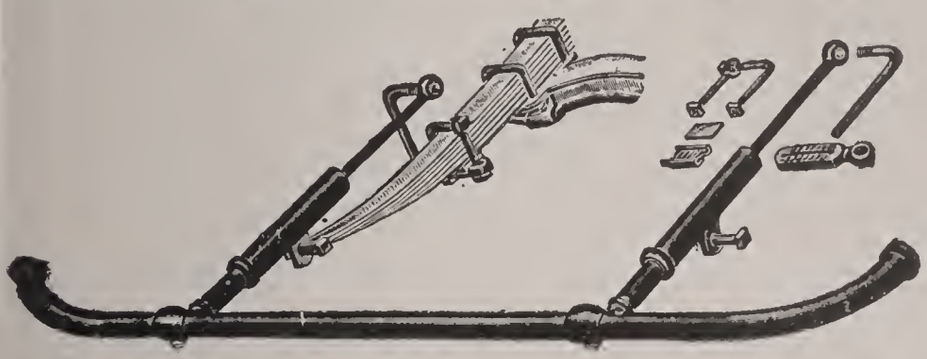
LOWELL, MASS.

Western Distributors

HIBBARD ENGINEERING CO.

DETROIT, MICH.

McGREGOR SPRING BUMPER



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Easily Attached

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Fits All Cars

Has the points of merit of others as well as valuable features of its own

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SOLD ONLY THROUGH DEALERS

Write for Special Introductory Offer

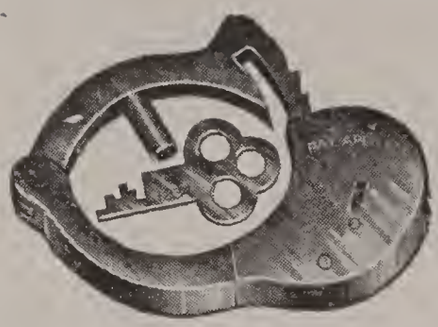
McGREGOR BUMPER CO.

136 East 20th Street Chicago

ROCHESTER SAFETY LOCK FOR AUTOMOBILES

"A Lock that Locks"

It is not necessary to drill your steering bar full of holes. Only one hole to drill and the lock is ready to place in position. Interchangeable combination. THIEF PROOF. Absolutely keyless. Ask your dealer or write direct for descriptive matter.



MOTOR CAR SUPPLY CO.
1451-53-55
Michigan Avenue
CHICAGO AGENTS

Our four-tumbler adjustable hasp Key Auto Lock will lock any automobile, motor cycle, bicycle, steamship gear, or can be used as a padlock. Also THIEF PROOF. Ask your dealer for prices or write us direct for descriptive matter.

Rochester Safety Lock Co.

ROCHESTER, IND.

IS IT REASONABLE TO SUPPOS
that over sixty leading manufacturers
automobiles would use and recommen

TRADE MARK REGISTERED IN
NON-FLUID OIL
UNITED STATES PATENT OFFICE

for transmissions and bearings if the
lubricants did not show best results
increasing efficiency, preventing wea
economizing gasoline and promotin
cleanliness. Don't sacrifice your c
for a doubt — try non-fluid oi

"IT SUITS BECAUSE IT DOESN'T SOOT"
MoToRoL
TRADE MARK REGISTERED, U.S. PATENT OFFICE.

for cylinder lubrication **accomplishes** what
claimed for other oils by lubricating effectively a
economically without carbonizing. It increa
engine efficiency — permits greater speed a
power on less gasoline.

Sole Producers: NEW YORK & NEW JERS
LUBRICANT CO., 165 Broadway, N. Y. C

FIVE —GOOD— REASONS WHY

"THAT STRANG" SPARK PLU

SHOULD BE USED BY YOU

1.—"THAT" BROAD GUARANTEE The No-Trubble Plu
We hereby agree to replace any plug that fails to wo
or is defective in any manner whatsoever within one y
from date of purchase.

2.—It is designed by LEWIS STRANG—THE WINNER
Who KNOWS HOW A SPARK PLUG should be ma

3.—IT'S MICA—But so made that it can not short circuit.

4.—THE BODY IS BRASS—will never rust
and last, but not least.

5.—THE EASIEST PLUG TO CLEAN.

If your dealer does not **yet** handle "THAT STRANG" PLU
WRITE US AND WE WILL See that you are suppli

LEWIS STRANG SUPPLY CO

2230 BROADWAY = = NEW YORK CIT

Keep Your Auto Radiator and Water Jacket Clean by Using

TRADE NONKORODA MARK

Automobile Radiator
and
Water Jacket Compound

Canister, $1.00

You can't afford to ruin your expensive Radiator and Water Jacket through corrosion, when it can be prevented for so small a cost.

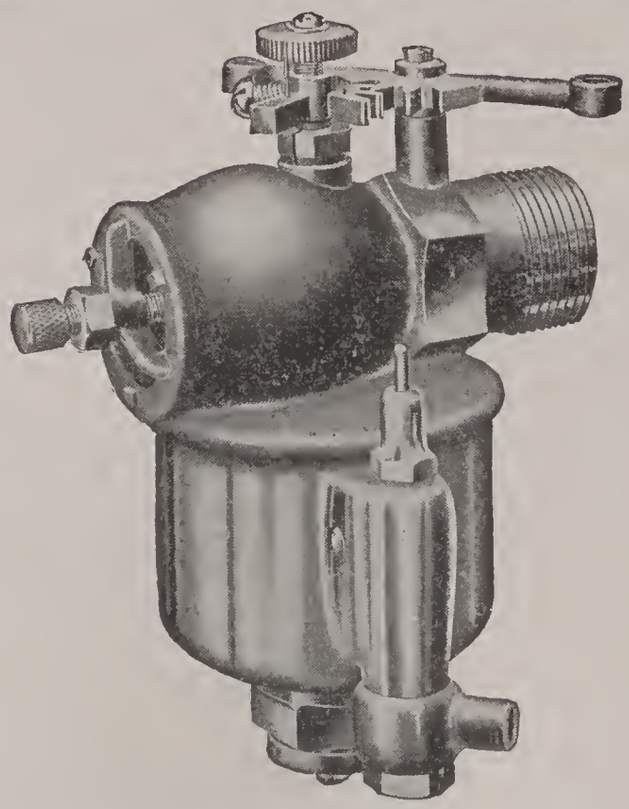
PREVENTS AND REMOVES

DIRT, RUST and GREASE from ENGINE WATER JACKETS and RADIATORS, CREATES PERFECT CIRCULATION of the WATER and a COOL RUNNING ENGINE.

Sold by all Auto Supply Stores and Garages, or direct from

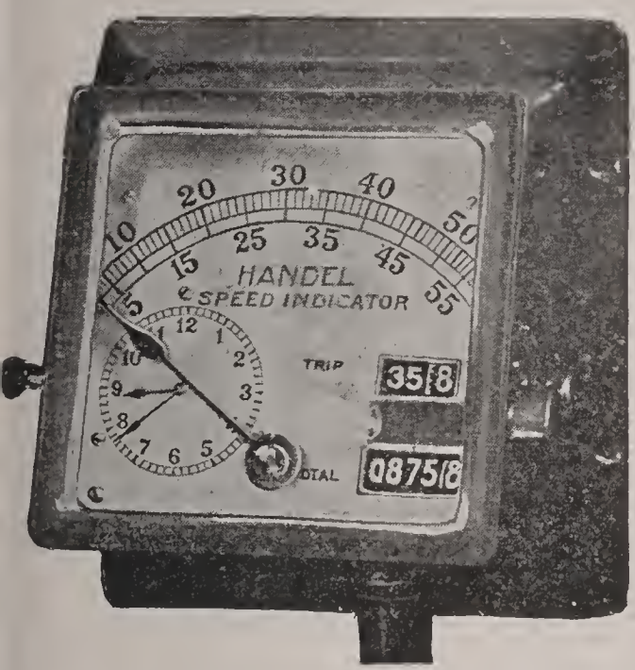
The Nonkoroda Co.,
25 and 27 New Chambers St., New York

MODEL "C"
HEITGER CARBURETER



Made in all regular sizes. Special types for Ford and Buick runabouts. All guaranteed to give satisfaction or money back.

HEITGER CARBURETER CO.
225 W. South Street, INDIANAPOLIS, IND.



Handel Speed Indicator

It is absolutely accurate
It is simply and compactly made
It does not get out of order
It stands the hardest usage
It is neat in appearance.
It is easily attached
It is guaranteed for five years
The hands do not waive and wobble.

LOUIS HANDEL

MANUFACTURER AND SALES AGENT

176-180 GRAND STREET

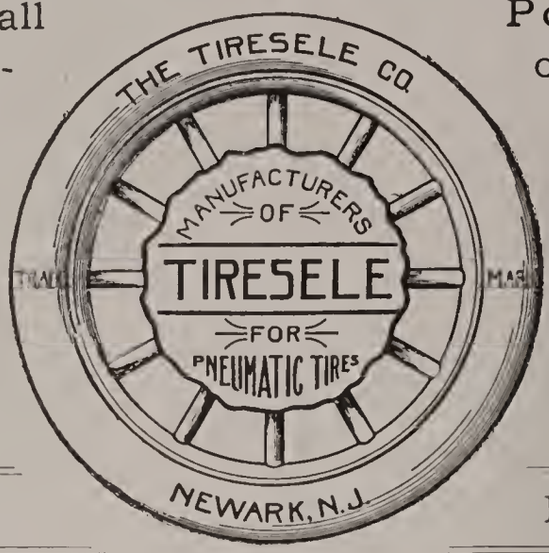
Write for Catalog

NEW YORK CITY

TIRESELE

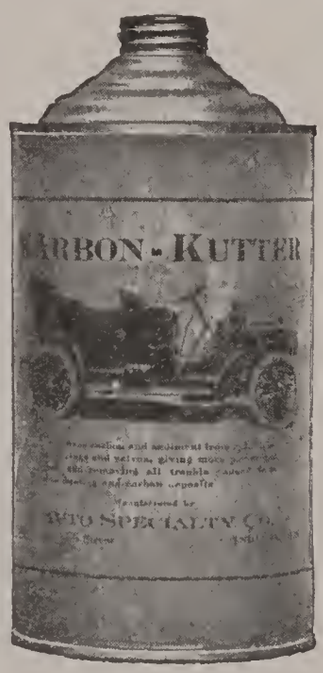
PREVENTS DELAY—LINGER AND WAIT—

takes care of all Porous or Punc-
tured tires—with- out removing the
Shoe. Also Motor Cycles, Bicycles
and all Pneu- matic tires —
last as long as tube — will not
gum up or get hard. Does not
in any way prevent vul-
canizing. Only two oz. to auto
wheel. Price, $2.50 per wheel.



WRITE FOR BOOKLETS.

THE TIRESELE CO., Manufacturers
53-55 Bank Street, NEWARK, N. J.
Sold by MOTOR CAR SUPPLY COMPANY, CHICAGO, ILLINOIS



KARBON KUTTER

WILL SAVE YOU MONEY

Cleans thoroughly all carbon and sediment from motor without injury to any parts.

GARAGE MAN'S CHARGE for tearing down motor and scraping carbon, ten hours - - - - - - $6.50

OUR CHARGE—1 qt. KARBON KUTTER - - - 1.00

Saved - - - - - - - - - $5.50

A set of Scrapers free with each order for one dozen quarts.

AUTO SPECIALTY CO.

330 NORTH ILLINOIS ST. - - - INDIANAPOLIS

AUTOMOBILE BRAKE BAND LINING

HAS A REINFORCED CUSHION SURFACE THAT TAKES UP ALL SUDDEN JARS AND PERMITS THE RIVETS TO BE COUNTERSUNK, THUS BRINGING THE WEAR ON THE LINING AND NOT ON THE RIVET HEAD

GRIP=ON

Spells Economy

IT IS SOLD UNDER AN ABSOLUTE GUARANTEE

For further particulars write

THE NEW YORK LEATHER BELTING COMPANY

EXCLUSIVE MANUFACTURERS

51 Beekman Street
NEW YORK

44 Franklin Street
CHICAGO

When passing through

Evansville

drop in and let us serve you

The finest Garage in southern Indiana. Our terms are right, and we don't care who knows it.

THE FELLWOCK AUTO & MFG. CO.

No. 3 Upper Fourth Street

EVANSVILLE, IND.

Opposite Court House

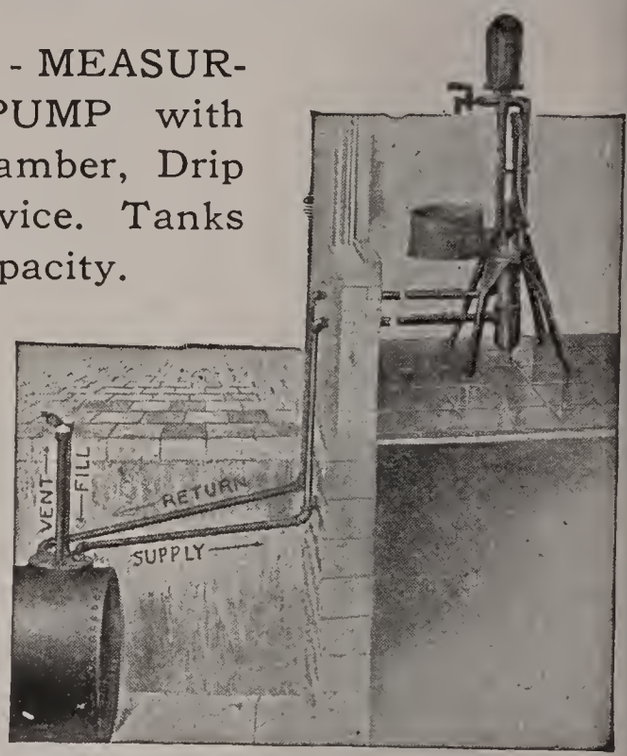
The Tokheim Gasoline Outfit

Outfit consists of DOME SELF - MEASURING, PRICE COMPUTING PUMP with Tokheim Patent Priming Chamber, Drip Pan, Gauge Rod and Locking Device. Tanks furnished in any desired capacity.

Pump can be furnished with Special Three-Way Discharge Valve and with Counter which registers the amount discharged up to 9999 gallons and repeats.

WRITE FOR CATALOG

We manufacture twenty-five styles of SELF-MEASURING OIL OUTFITS.



Dome Outfit No. 4.

THE TOKHEIM MFG. CO., CEDAR RAPIDS, IOWA

THE "MULTO" SOCKET RATCHET WRENCH

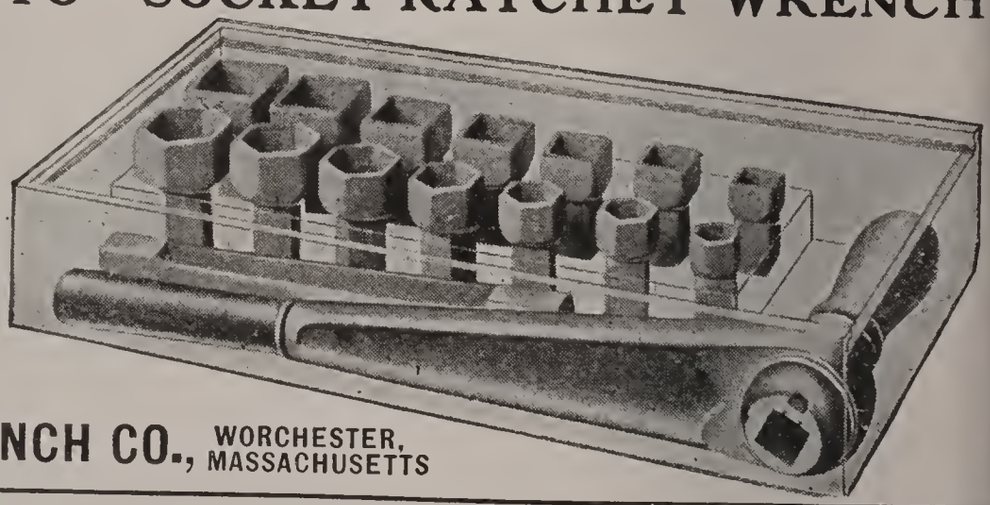
We make Wrenches all sizes from 5-16 to 5 in. sq., 5-8 to 5 in. hex.

This half-tone is from a photograph, showing our "Multo" Socket Wrench. Each Wrench with its fourteen sockets is packed in a substantial co.ered box.

All our Ratchet Wrenches are reversible and work right or left handed at pleasure without removing the Wrench.

All kinds and sizes.

Send for catalogue.



LOWELL WRENCH CO., WORCHESTER, MASSACHUSETTS

The use of "DUFFY'S" proves our claim
"ONCE A GREASE,
ALWAYS A GREASE"

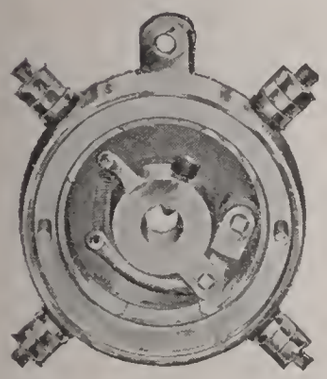
No waste or flushing on the brakes.
Not affected by weather conditions.
Used wherever a grease is used.

Try it

DUFFY GREASE COMPANY, Inc.
New York, N. Y.

Timers and Distributors

OF EVERY KNOWN TYPE
FOR EVERY KNOWN SERVICE



We are specialists in this line and our experience and manufacturing facilities enable us to turn out large quantities for engine builders and dealers at very attractive prices. Jobbers and dealers write us for prices. Agents wanted in the West and on the Coast.

The Altemus Manufacturing Co.

42d AND CHESTNUT STREETS
PHILADELPHIA, PA.

TRADE MARK
Raybestos

FRICTION FACING

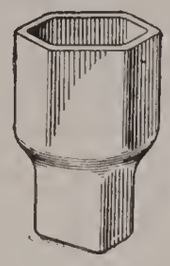
Is made IN ONE PIECE from asbestos.

Is impregnated in such a manner that it is proof against heat, oil and grease.

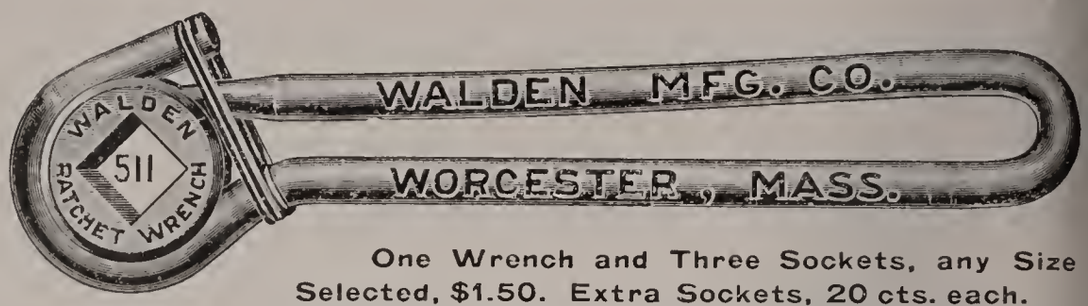
Is an ABSOLUTELY DEPENDABLE Brake Lining. You owe to yourself to see that your brakes are lined with it, if you want to have complete control of your car on the steepest grades.

ROYAL EQUIPMENT COMPANY

176 Housatonic Avenue **BRIDGEPORT, CONN.**



STEEL SOCKETS FIT
No. 511



One Wrench and Three Sockets, any Size Selected, $1.50. Extra Sockets, 20 cts. each.

Hexagonal Sizes Only to Fit Heads	
No. 06	3/8
No. 08	1/2
No. 09	9/16
No. 010	5/8
No. 011	11/16
No. 012	3/4
No. 014	7/8
No. 015	15/16
No. 016	1
No. 017	1 1/16
No. 018	1 1/8
No. 020	1 1/4

THE ONLY THREE-PIECE RATCHET WRENCH. NOTHING TO GET OUT OF ORDER. SIMPLEST POSSIBLE TOOL. THE HANDLE IS WIRE—BUT IT CAN'T BREAK—IT WON'T BEND—IT WILL STAND THE STRAIN—A STRONG, SERVICEABLE WRENCH, THOROUGHLY WELL MADE; Best of Selected Stock; Nickel Finish.

For Tire Lugs			
No. 28	1/2"	Hex.	$ .35 Each
No. 29	9/16"	Hex.	.35 Each
No. 212	3/4"	Hex.	.40 Each

WE MAKE SPECIAL WRENCHES

WE WANT YOUR INQUIRIES

TRADE MARK CLEANOLA REGISTERED

TRADE MARK SPE-DE-SHYNE REGISTERED

The Auto Polish of Quality.
Restores the shine and surface to the body, leather trimmings, cushions and top, prolongs the life of the finish and greatly improves the appearance of the car.

The Metal Polish with the Elbow Grease in the Can.
More Polish, Less Work.
Wipes Freely, Contains no Acid.
Imparts a brilliant lustre to all Metallic Surfaces.

SOLD BY ALL FIRST CLASS DEALERS IN AUTOMOBILE SUPPLIES

If your dealer hasn't got them in stock, write us for our

Thirty-Day Trial Offer

THE CLEANOLA COMPANY

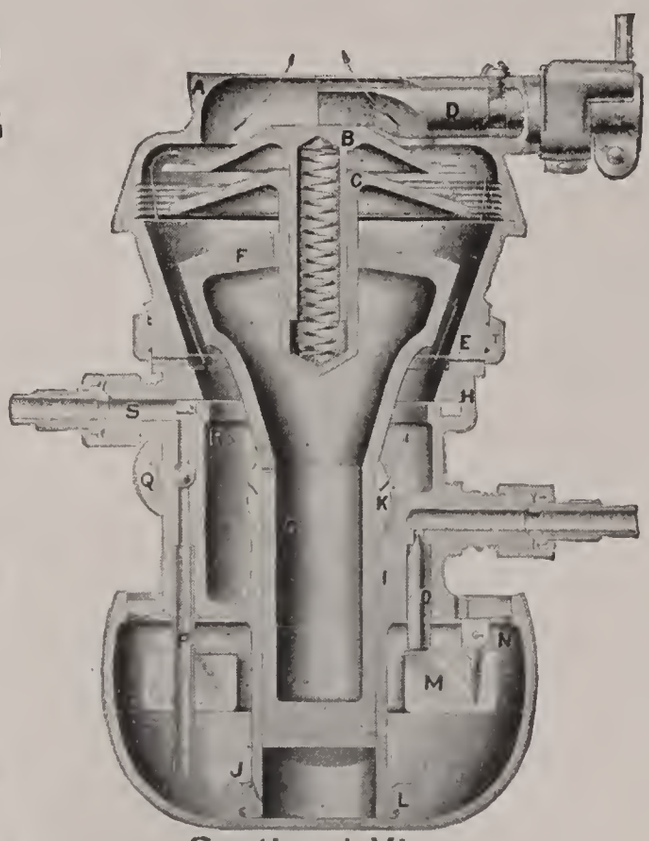
Fulton Building
PITTSBURG, PA.

53 West Van Buren Street
CHICAGO, ILL.

New Principle

THE

Stewart Precision Carburetor



Sectional View.

You want the maximum of POWER
on the minimum of FUEL.
You want quiet running and
a UNIFORM MIXTURE at all speeds.

THE

STEWART PRECISION CARBURETOR

will get you these results better than any instrument you have ever used, or your money will be refunded.

NEW PRINCIPLE.

The proportioning of air and gasoline is accomplished by **gravity,** acting on the one moving part, there being no **springs.**

THE RESULT

is a consistent performance at all times. Write for descriptive matter

Alfred C. Stewart Machine Works,

LOS ANGELES, CAL.

FOUR GOOD THINGS

MOBO AUTOMOBILE CLEANSER

is made as good as automobile soap can be made. It has a substantial body. Therefore it cleans easily, quickly and thoroughly. MOBO is also absolutely free from uncombined alkali. Because of this it works without injury. These things about MOBO mean much. They mean clean, bright cars, also long life to varnish and paint. Therefore we suggest—try MOBO—in **50c** and **$1.00** cans.

SHOFO HAND CLEANSER

is made of Castile Soap, powdered Pumicestone and green Olive Oil. These three SHOFO ingredients show a quick, easy and effective working out. To explain, the Castile Soap washes, the Pumicestone scours and the Olive Oil keeps the skin soft. This SHOFO way of hand cleansing is ease, speed and delicacy combined. It is better than all others. Therefore we say—try SHOFO. In **10c** and **20c** cans.

HYGLO METAL POLISH

is different from all other metal polishes. It is one that eliminates the wait-while-it-dries feature. Also that rub-rub-rub which does tire. Instead the HYGLO way is quick, easy and sure. Then further a HYGLO shine is always even and brilliant, and one also that stays long. In that regard a HYGLO shine is distinctly long-lived, and the only one that is a real all-day shine. **15c, 25c** and **$1.50** cans.

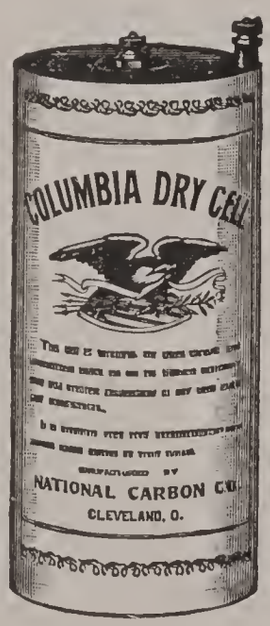
LEVO WOOD POLISH

is good for cars minus part of the fine varnished finish they had when new. That because LEVO fills in digs and covers up bare spots. At the same time LEVO gives a polish equal to a new coat of varnish, which does not wear off quickly, or come off in washing, because LEVO is an oil preparation and is waterproof. So if your car shows varnish departed, but not enough to warrant the paint shop—Try LEVO, and it will make the car look new. In **25c, 50c** and **$1.00** bottles.

JOHN T. STANLEY - MAKER - NEW YORK

SOLD BY

MOTOR CAR SUPPLY CO., 1451 MICHIGAN AVE., CHICAGO



BE GUIDED

by other MOTORISTS and equip your MACHINE with

COLUMBIA

or COLUMBIA IGNITOR

"RED TOP" dry cells.

Don't accept SUBSTITUTES which may spoil your trip. INSIST on getting COLUMBIA cells. They cost NO MORE.

No Extra Charge for Fahnestock Clips

NATIONAL CARBON COMPANY CLEVELAND, OHIO

On Dunlop Type

Over 8,000 miles with a Cadillac on Diamond Dunlop type tires and no tire trouble at all. That's what I think of the Diamond Dunlop Style of tires.

R. W. Emerson,
Central City, Ia.

What's Your Car ?

On Fisk Type

My experience with Diamond Fisk Type or "bolted on" tires on my Stevens-Duryea has been so satisfactory that I shall certainly have none but Diamond in future.

N. L. Ely,
Peekskill, N. Y.

Big or Little **Diamond** **Heavy or Light**

WRAPPED TREAD TIRES ARE FOR YOU

On a Large Car

I can well imagine that you receive many testimonials for Diamond tires, but I wish to add mine—that Diamond tires on my Peerless Car have been nothing short of extraordinarily fine.

Fred Hoke,
Indianapolis.

Much Better

Cost No More

Quick Detachable
Regular Clincher
Mechanical (Dunlop)
And Fisk Types

On a Light Car

As a physician using a runabout in practice, I drive the car very hard and the tires must bear the brunt of it. Am pleased to say I find Diamond tires much better than all the others I have used.

(Dr.) S. A. Muta,
West Orange, N. J.

Ask For Our Tire Instruction Book — It's Free

THE DIAMOND RUBBER CO. AKRON, OHIO

All supply houses sell

DYKES'

Never Kreep

Tire Shoes

This shoe is specially prepared with a cement coating, ready for instant use. Clings to inside of casing, same as if vulcanized.

John L. G. Dykes Co.
CHICAGO, U. S. A.

HAZARD OF NIGHT DRIVING

is reduced to the minimum only if you use reliable burners. The safety of both car and passengers depends then on this apparently unimportant little unit. "A chain is no stronger than its weakest link." No matter how good your lamps or gas supply, unless you have the best burner procurable. When your lamps are new from the factory, they are equipped with some style of Alco burner, for all important lamp makers use ALCO. Then why not insist on Alco again when replacing broken and worn out burners? All dealers sell—we do ***not*** sell to consumers direct.

Ask Dealer.

Alco DeLuxe Genuine German Lava. All gas sizes. Hexagon base (Pat. Dec. 24, 1907) permits easy installation with wrench or pliers.

AMERICAN LAVA COMPANY
CHATTANOOGA, TENN.

Always See the Road

Have a **Williams Shield** put on your car while stopping over night.

1910

A Touring Car Shield When Top is Up — A Roadster Shield When Top is Down

All in One — Fits All Cars — Nothing Like It

20th Century Motor Car Supply Co. ... Sole Mf'rs.

Garage Department one block from Oliver Hotel. Open day and night. Machine Shop and Supplies

121-125 South La Fayette Street, South Bend, Ind.

NEVER MIND THE PUNCTURE

THAT CAN BE REPAIRED WHEN YOU GET HOME

A Detroit Emergency Wheel

attached to the rim of the wheel carrying the disabled tire, will enable you to drive for miles

EASY TO PUT ON — **LIGHT WEIGHT** — **REASONABLE PRICE**

Can be attached in less than one minute without removing the punctured tire

Ask Your Dealer for the ***Detroit*** Emergency Wheel

SPECIAL

Ford Magneto = = $25

For **Ford Models N. R. S.**

Maxwell Magneto $25

For **Maxwell Two = Cylinders**

Does the work as well as any $75 Magneto. Does it far better than any cheaper Magneto. No special coil required. Works with your present equipment. Brackets and everything necessary for installing furnished. The only Magneto backed by a 30-day free trial. Not an experiment There are thousands in use. Write for catalog M. Which have you, Ford or Maxwell?

HERCULES ELECTRIC CO. 2128 to 2136 Northwestern Ave. **INDIANAPOLIS, INDIANA**

TIRES REPAIRED and VULCANIZED

Blowouts repaired. Sectional repairs made. Casings retreaded and recovered. Tube punctures vulcanized. Motor cycle tires repaired.—We give you a SQUARE DEAL and YOUR MONEY'S WORTH. We can guarantee our repairs, because we use the best materials, employ efficient workmen, and operate our well-equipped shop under up-to-date methods. **We Sell New Tires.** Our Aim is Our Motto: "Right and Reasonable."

THE MODEL VULCANIZING COMPANY

Phone: Calumet 531 1547 Michigan Avenue Chicago, Illinois

A DUCK BRAND LABEL

ON AUTOMOBILE WEARING APPAREL

Means the Best of Its Kind At Any Price

ALL LIVE DEALERS CARRY THE LINE

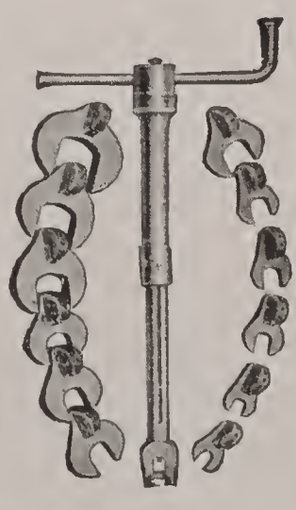
Protector Coats, Dusters, Rubber Shirts
Cravenettes, Leggins, Corduroy Clothing

THE DUCK BRAND CO. =:= CHICAGO

REX Adjustable Wrench Sets

Extension Ratchet handle; Interchangeable heads; adjustable instantly to any position. Fits any nut, bolt or cap screw, square or hexagon, on any machine. All parts drop forged from high carbon steel and **ABSOLUTELY WARRANTED** against breakage.

YOU NEED THIS WRENCH



REX WRENCH CO.
Hathaway Bldg, Summer St. BOSTON, MASS.

THE WORD Thermoid MEANS THAT GOODS SO BRANDED ARE ABSOLUTELY CORRECT

Thermoid

BRAKE BAND LINING

Thermoid

TIRES AND INNER TUBES

MANUFACTURED BY THE

Thermoid RUBBER COMPANY

TRENTON, N. J.

THE ROAD TO SATISFACTION

Equip your car with the GRAY AUTOCHIME. The Pioneer and Aristocrat of exhaust-blown signals. Some unscrupulous jobbers and dealers are offering imitations at prices from $4.00 up. The Autochime sells for $10.00. It's more than worth the difference.

See the name on the bell.

GRAY-HAWLEY MFG. CO. DETROIT, MICH.

Superior Motor Car and Motor Boat Accessories

DIXON'S GRAPHITE MOTOR LUBRICANTS

Supply lubrication for practically every part of the car; cylinders, transmissions, differentials, bearings, etc. The service these lubricants render is due to DIXON'S TICONDEROGA FLAKE GRAPHITE — the finest lubricating graphite the world produces. Use Dixon's and increase your car's efficiency.

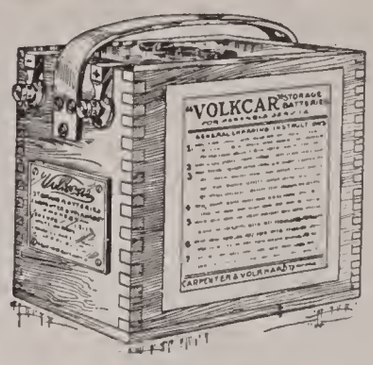
JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, N. J.

IN YOUR TRAVELS

YOU WILL NOT FIND A STORAGE BATTERY TO EQUAL THE

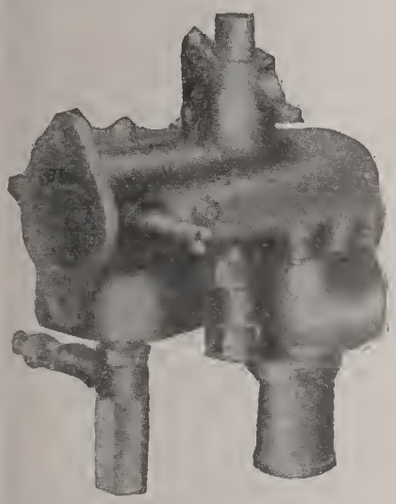
VOLKCAR

TRY ONE AT OUR EXPENSE



CARPENTER & VOLKHARAT

2443 MICHIGAN BOULEVARD, CHICAGO, ILLINIOS



THE PRINCIPLE OF THE

PETRE CARBURETTER

is exclusive. No other carburetter on the market has an automatically controlled needle valve which apportions the exact amount of gasoline for the given amount of air, making the **quality** of the mixture **constant,** whether running five or fifty miles per hour, up or down grade.

Notice that the needle valve and the air inlet are so affixed to the **same lever** that any movement of the air valve gives a correct and proportionate movement of the gasoline inlet, thus insuring a perfect mixture at all times, under all conditions.

The Petre Carburetter is guaranteed to

1. Start your Engine not later than the 3d quarter turn.
2. Give Greater Flexibility in Slow Running.
3. Greater Speed—By increasing **Quantity,** without changing the **Quality** of the mixture.
4. Greater Power in Hill Climbing—Same reason. (25 per cent. more power on topping a hill—and we can prove it.)
5. More Mileage—Less Consumption—Mixture is never too Rich.

THE PETRE CARBURETTER CO.
1839 Euclid Ave., Cleveland, O.

See Our "Guarantee Policy"

Tire Problem Solved!

No remedy has been found that would heal punctured tires without injuring the rubber, until "PERMANIT" was discovered and put in practical use.

"Permanit"

is imported from Europe and in use there for years and now in this country on the market for over a year and a half.

See what our customers say about it:

A prominent physician and ex-president of the Board of Trade writes:

"My Dear Sirs—I have used the auto car in the tires of which you put the material you call "PERMANIT," since November 21, 1907. It has not been necessary to pump up the tires since, although we have taken out of the tires several nails, tacks and pins. It appears to me to do the work."

We have many more similar to this and which are open to your investigation.

Refuse substitutes—let someone else try imitations **Why buy imitations when we can furnish you with the genuine?** Do not run any risk by trying something which has not been **fairly tested to stand all kinds of weather and roads.** "PERMANIT" has stood all these severe tests.

Sounds unbelievable, but it really does it. Besides, keeps the tires in good condition and increases their life.
Demonstrated before Board of Governors Harrisburg Motor Club with great success.
In your own interest write today and get full particulars and price and discounts to dealers, or send 53c for a sample carton which is sufficient for a bicycle tire.

THE ADOLF KARL CO.

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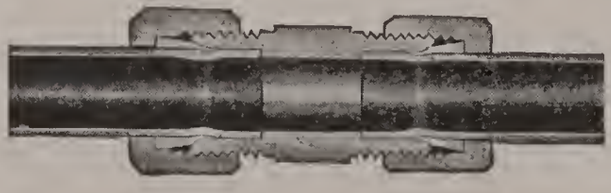

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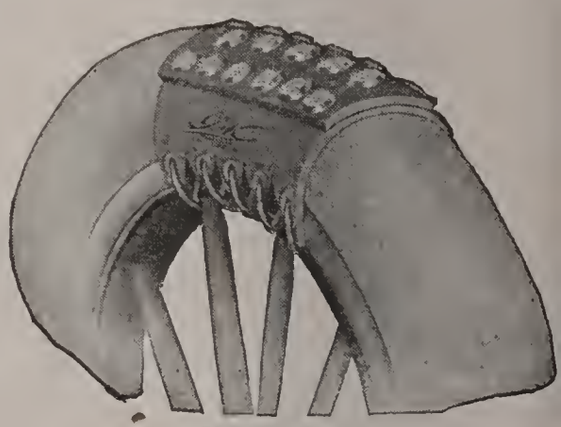

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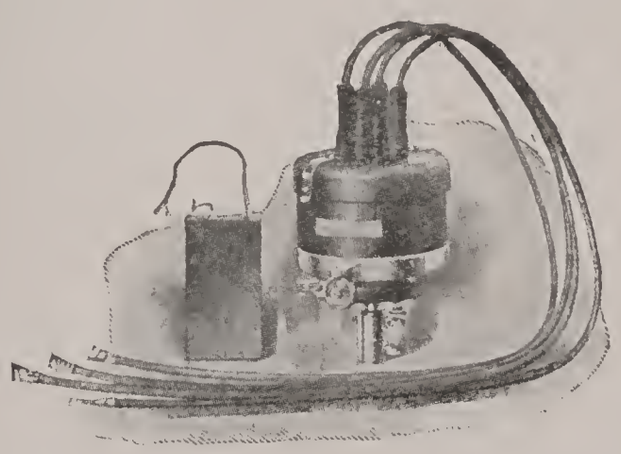

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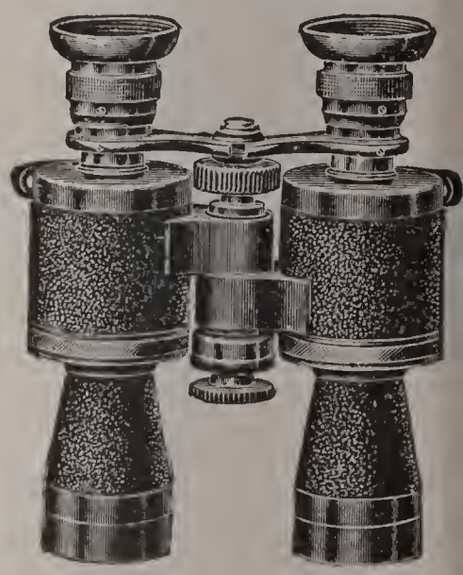

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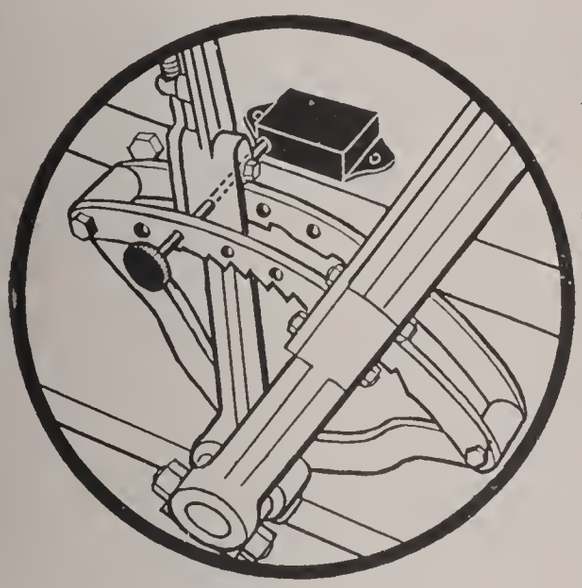

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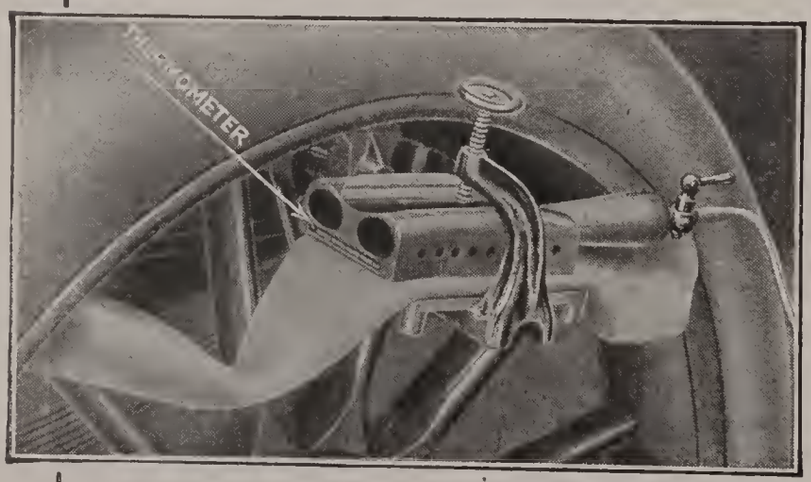

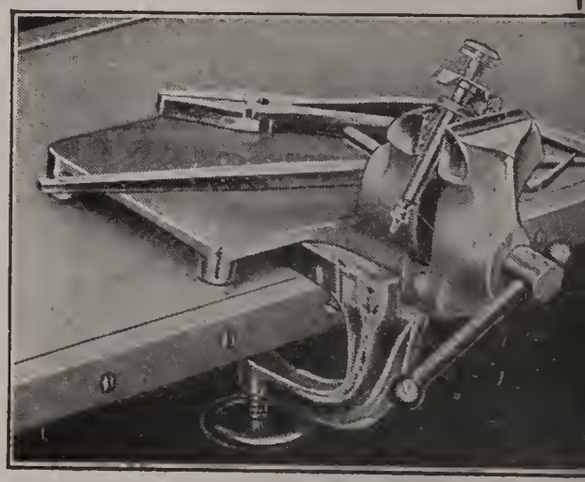

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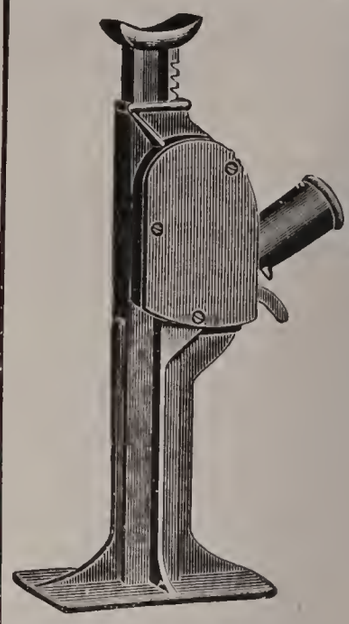

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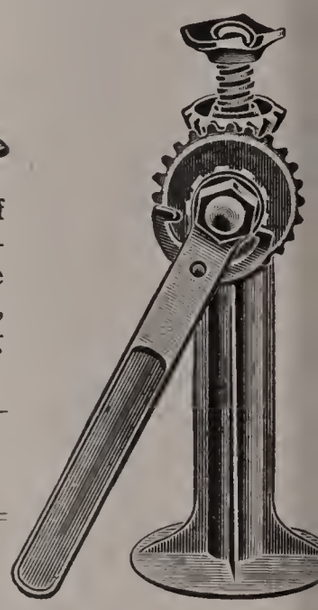

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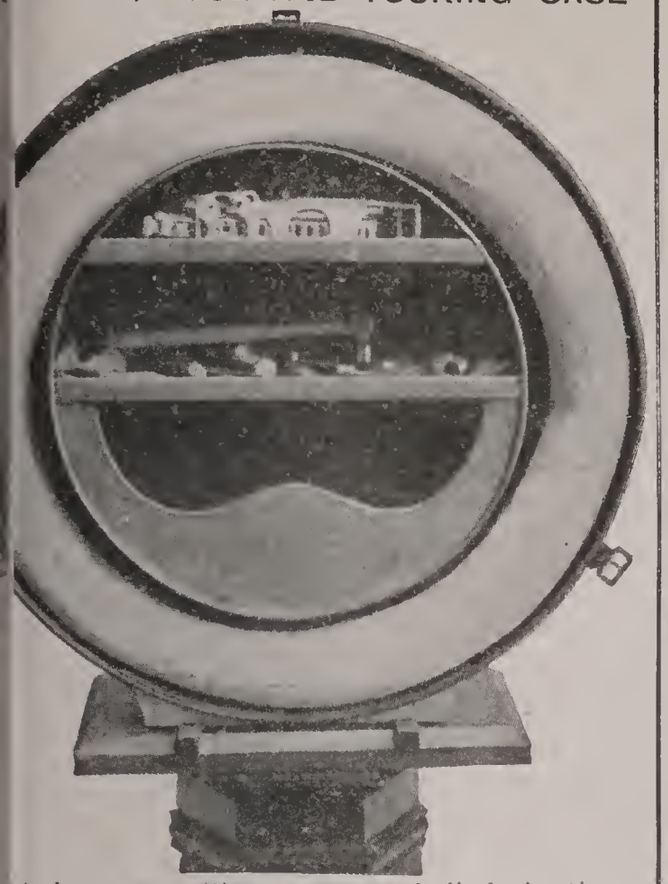

it shows case with cover removed, displaying tires, , tools, etc. The lower space within the circle holds caps, gloves inner tubes—or any articles used in tour- The tire space takes two shoes, the upper spaces a full quipment, thus doing away with all other appliances rrying extras. The cost of the Dow Tire and Tool is much less than that of the many pieces of equipment d if this case is not used on your car. Patent pending.

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This Sireno Electric Horn is so flexible that by varying the pressure on the switch you can produce a gentle purr for the city streets, or a blast that can be heard over a mile away in the country.

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Built on the same principle as the Sireno, except that it is smaller—produces a lesser volume of sound—and has no automatic brake. A wonderful horn at $25—suitable for any car. For summer touring, there is no better horn for any car than the Sireno Junior with the long Projector. Its note will carry for almost two miles on a country road. Price, complete, $28.

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S. AND ATLAS AUTO JACKS

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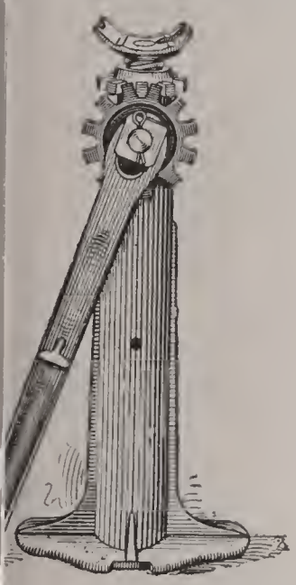

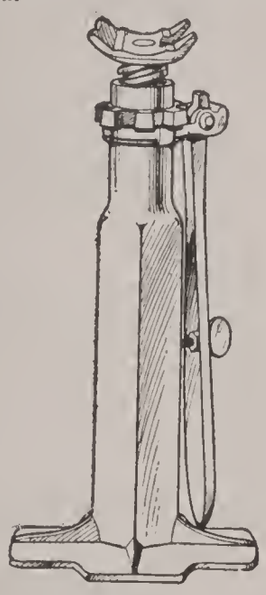

1907 Atlas Nos. 1, 2, 3. U. S. Jack No. 1.

Height over all, No. 1 10 inches. No. 2, 11 3-4 inches. ght No. 1. 5 lbs; No. 2, 6 lbs.

The lever has an up and down motion. It is slotted at nd so as to move in or out, to engage from 1 to 4 teeth e wheel.

The head revolves on the end of the screw so that the can be worked at any angle or in cramped places. The lifts the truss brace round or square axle.

Raises any automobile with wheels 22 inches or over.

You cannot have an accident with this jack.

The screw is one inch in diameter.

For quick work raise the screw up against the axle and the nut down until tight then two or three strokes of ever raises the wheel.

A good jack is just as essential as good roads.

See that your car is equipped with either a U. S. or Atlas . Simple, durable, guaranteed.

List price, No. 1 $2.50; No. 2 $3.00.

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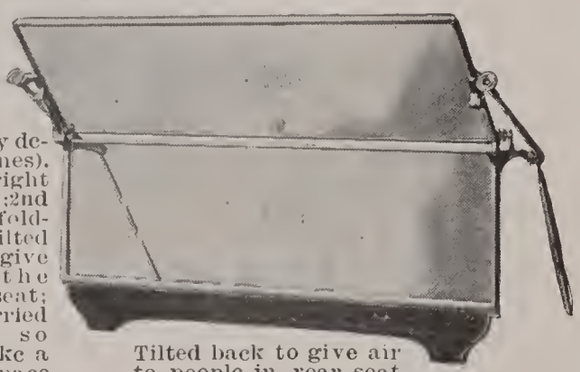
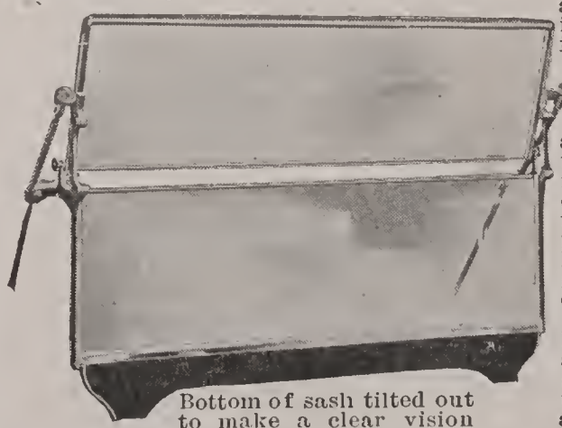
Col. Sprague's New Air Cushioned "Leader" Wind Shield.



Tilted back to give air to people in rear seat and still keep out storm.

It can be rigidly held in four positions (the only desirable ones). 1st. Upright or closed; 2nd Down or folded; 3d. Tilted back to give air to the back seat; 4th. Carried forward so as to make a clear space between the upper and lower sash, so you can see your way in rainy weather. Our air cushion locking device works easily and positively and holds the shield rigidly in each of the above positions. It cannot get out of order.



Bottom of sash tilted out to make a clear vision space in case of rain and still keep out the storm.

Do you know of any other shield that has all of these important features combined?

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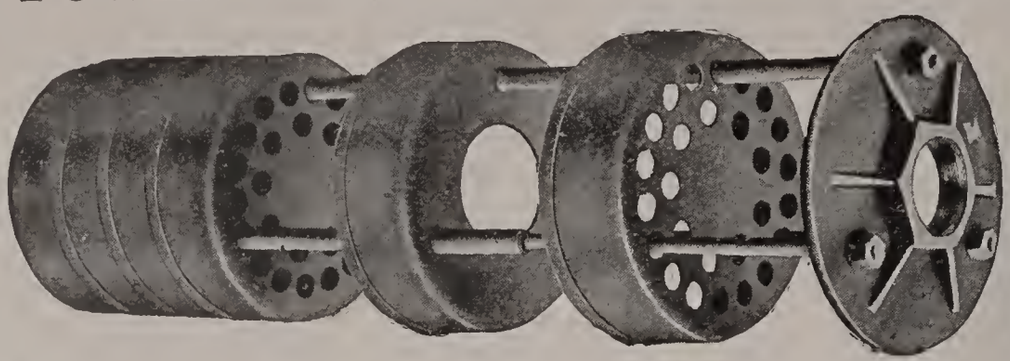

In ordering state size of engine cylinder and number, size of exhaust pipe and whether standard pipe, steel or flanged connection is used.

We recommend a 15 or 16 section for a 40 to 50 horse-power automobile engine.

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Perfect Fitting.

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Represents the Finest Product of the Wind Shield Art. Light, Durable and Will Not Rattle.

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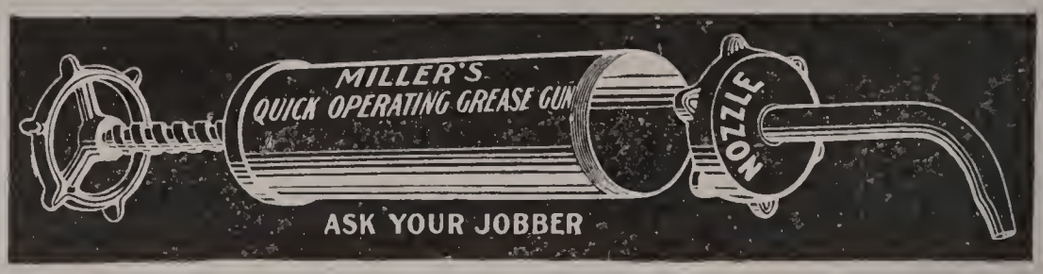

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FILLED AND EMPTIED IN THIRTY SECONDS

$2.00 FULLY GUARANTEED $2.00

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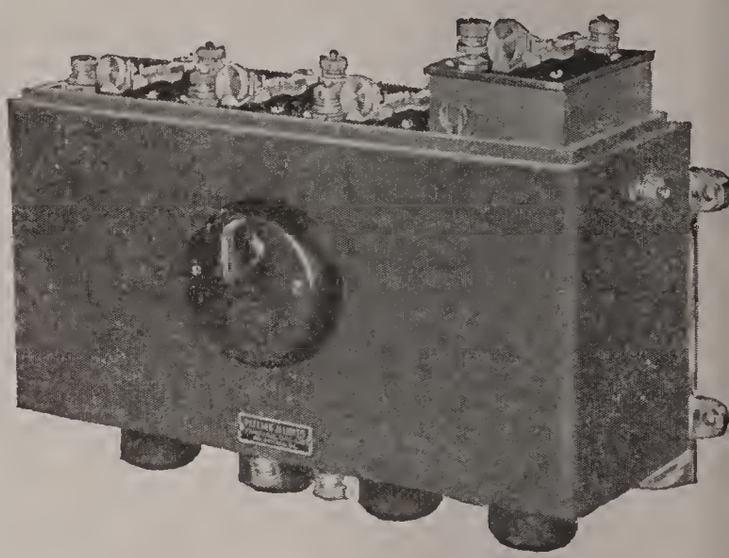
All windings guaranteed absolutely for five years. Constructed by our patented methods. The most advanced coil on the market. High grade workmanship. No "Freak" Features. Built along practical and scientific lines. The lowest priced strictly high-grade coil. Our pan-cake system of winding explains this.



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North Chicago. Illinois.

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Uses ANY standard No. 6 Dry cell,
No wires, no binding posts,
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"Shut the Lid = = = That's All!"

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Positively Makes

MAKES TIRES LAST TWICE AS LONG

DOUBLES THE PLEASURE OF AUTOMOBILING

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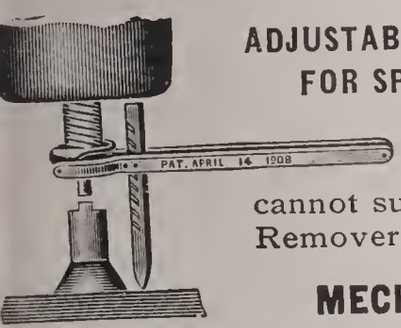

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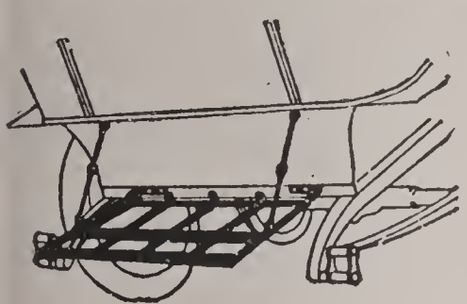

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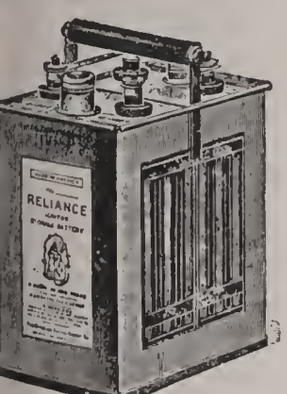

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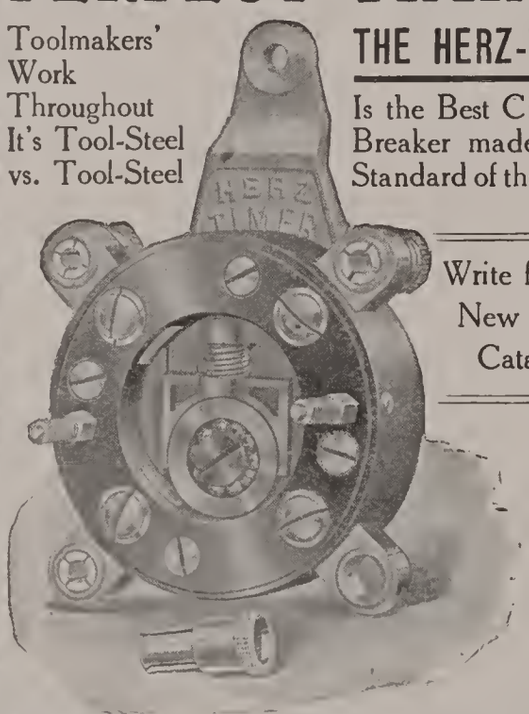

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NEVER BURNS OFF
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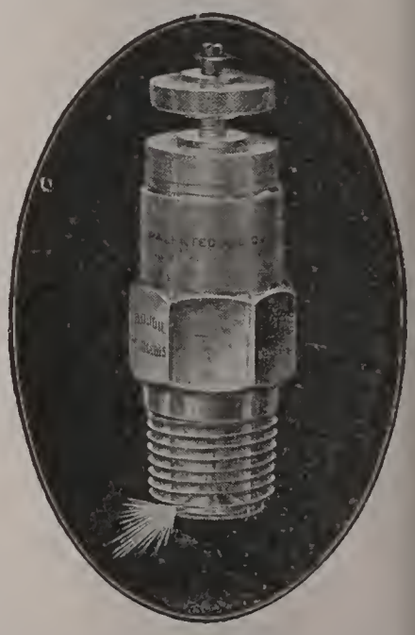

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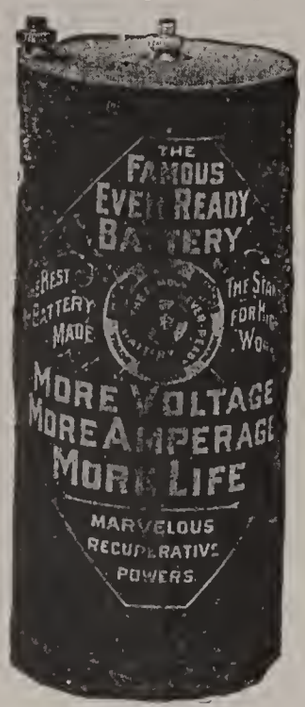

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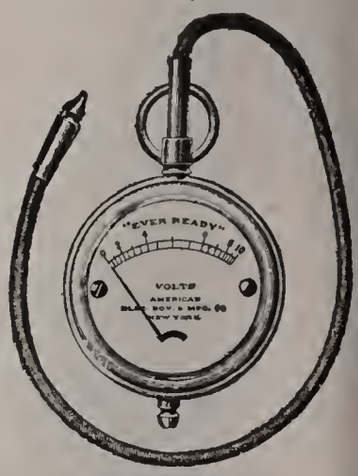

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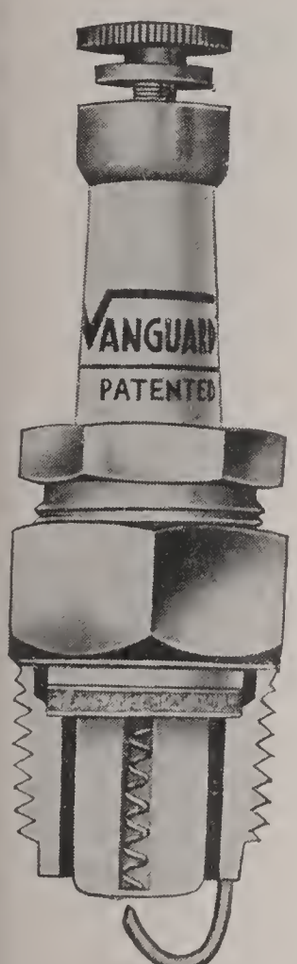

come to all who do not use the kind of Spark Plugs that will work under all engine conditions, regardless of dirt and moisture. In

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the central firing pin or point has been eliminated and the spark is forced to a connection with spiral platinum wire encased in porcelain through a microscopic aperture that does not permit even air to enter.

Look for the Trade Mark.

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It means perfect goods and fair prices.

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Manufacturers of the famous Vanguard Wind Shields

OUR LINE FOR 1909-1910

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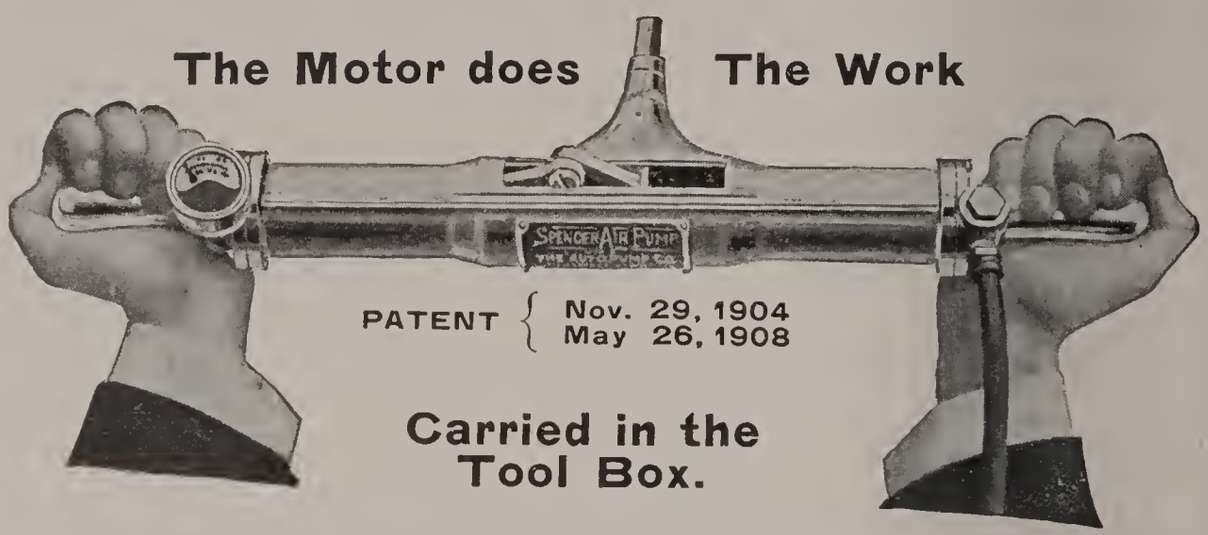
The Motor does The Work



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Carried in the Tool Box.

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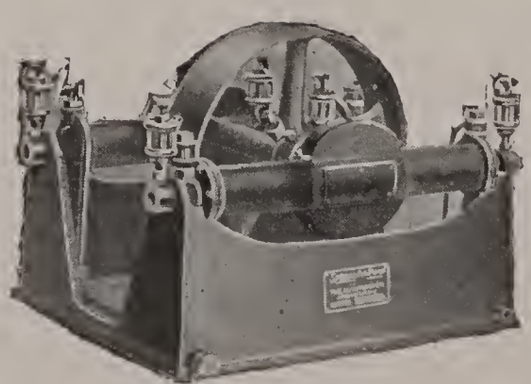

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or to-morrow or next day. Then you'll need Weed Chain Tire Grips. And you'll need them badly. There is only one way that you can be positively sure that your car is not going to skid off the road, and that is — by using

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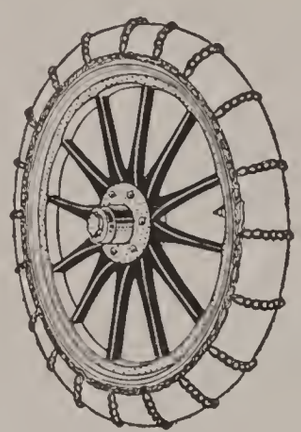

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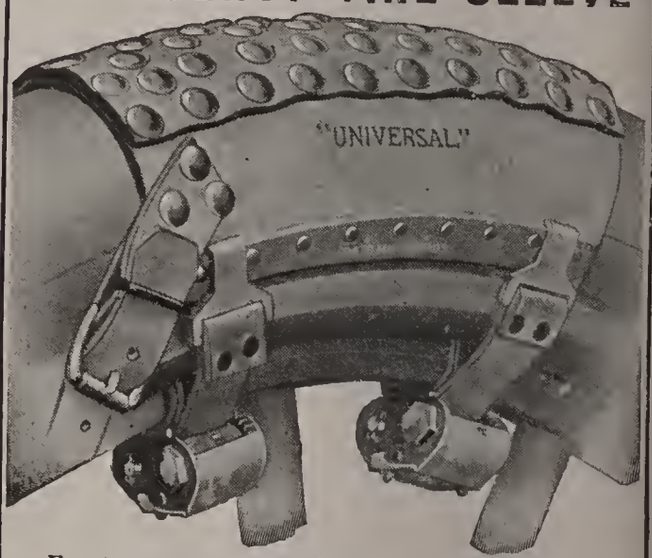

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Every owner of an Automobile needs a

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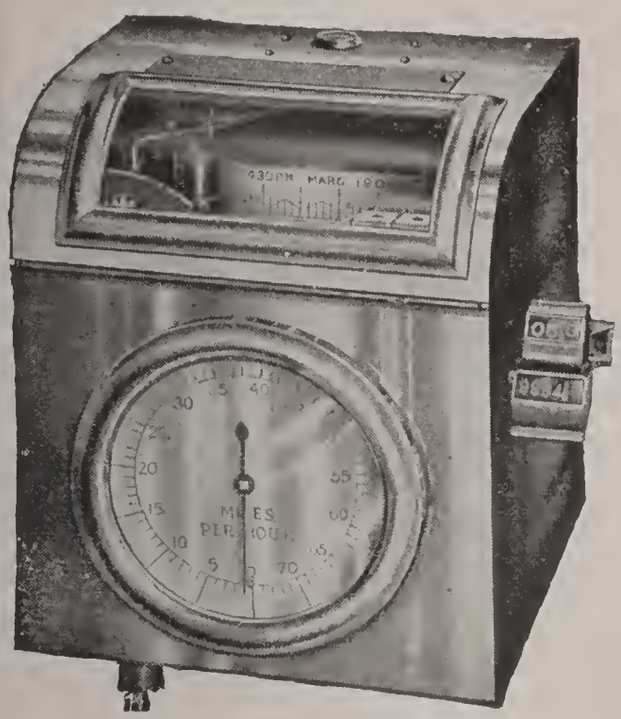

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Spare tires carried inflated on extra rims at the side of the car.
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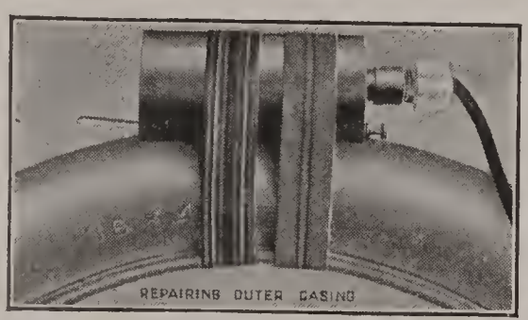

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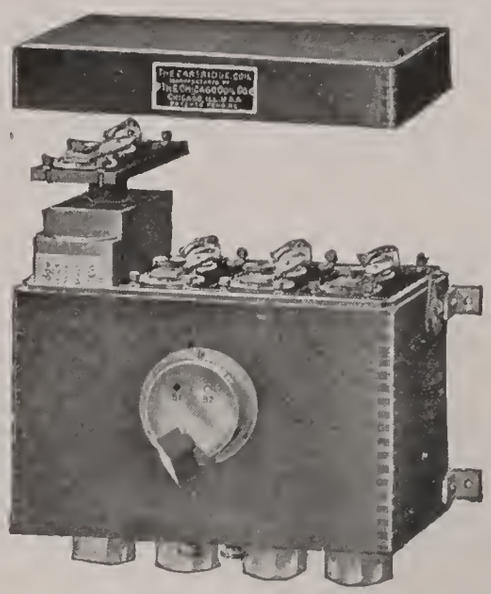
No units to throw away. Economical on current. Has the switch with a memory which saves platinum wear and is in every way a superior article.



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May 27, 1909.

The National Steel Products Co.,
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Gentlemen:

Enclosed please find my check in the sum of Eight Dollars for which send me four spark plugs. I have tried plugs of several different makes. Yours is the best ever. I have a set that I have used in my Ford Model N Car **for a year.** Yesterday I went for a seventy mile run, and as one of my plugs is in poor condition, the mica being broken, I purchased a new plug said to be soot proof and to spark in oil and water. I made the run of thirty-five miles with the engine being erratic after the first few miles, and as I was loosing power on the hills I examined the plugs, found the New Plug as black as soot itself, and the other three plugs all with a sparking surface. I brushed them off with a stiff brush, and put in my old dilapidated plug and made the other thirty-five miles without mishap. **I do not give a D— whether a plug will spark in oil and water. I want one that will spark in the cylinder, and permit me to say that your plug will do it.** I think that you will make the other fellows sit up and take notice. I tell you this now, as post mortem roses have their beauty lost to the fellow most interested.

Yours very truly,

JNO. B. ANDERSON.

We are supplying a number of the largest automobile manufacturers, who have previously contracted for other plugs, with our Spiral Core, Blue Blaze and Rapid Fire Plugs, for 1909 use, they having discontinued other plugs because of better results from ours.

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